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ABSTRACT

This World Bank (Washington, D.C.) kit is a case study designed to teach secondary school social studies students about an integrated rural development project in Mexico, and how it is helping to raise the standard of living for six million Mexicans in 131 microregions throughout Mexico. The kit contains a pamphlet, a booklet, a sound filmstrip, and a teacher's guide. The pamphlet, "Economic Summary: Mexico," provides students with an introduction to the economic situation in Mexico, noting its rich endowment of natural resources, the relatively advanced state of its economy, and the need for helping the rural poor. The booklet, "Tackling Poverty in Rural Mexico," examines the Mexican economy by focusing on the living conditions of small farmers and their families. Students are introduced to farmers in a poor village and examine changes that take place when they build an irrigation system and learn to use new farming methods. The filmstrip, "Many Steps, One Goal," reviews the case study. The teaching guide contains: (1) objectives for learning; (2) eight lesson plans; (3) the filmstrip script; and (4) twelve reproducible student worksheets, including one test. Maps, drawings, and black and white photographs are included. (JB)

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Tackling Poverty In Rural Mexico: A Case Study of Economic Development.

Toward a Better World Series, Learning Kit No. 4.

Harriet Baldwin

Bruce Ross-Larson, Ed.

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Economic Summary

Mexico

Social or economic indicator	Mexico	United States
Land area	1,973,000 square kilometers	9,363,000 square kilometers
Population, 1981	71,200,000	229,800,000
Projected population, 2000	115,000,000	259,000,000
Proportion of population in urban areas, 1981	67 percent	77 percent
Proportion of workers in agriculture, 1980	36 percent	2 percent
Proportion of population of secondary-school age that is enrolled in school, 1980	37 percent	97 percent
Proportion of adult population that is literate, 1980	83 percent	99 percent
Life expectancy at birth, 1981	66 years	75 years
Infant mortality rate, 1981	5 percent	1 percent
Persons per physician, most recent estimate	1,260 persons	520 persons
Daily supply of calories per person, 1980	2,791 calories	3,658 calories
Passenger cars per thousand persons, most recent estimate	46 cars	526 cars
Per capita consumption of coal or equivalent energy, 1980	1,684 kilograms	11,626 kilograms
Gross national product, 1981	$160,200,000,000	$2,946,000,000,000
Gross national product per capita, 1981	$2,250	$12,820

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Mexico is one of three places—Southeast Asia and the Middle East are the other two—where people first began to farm the land. That was eight or nine thousand years ago. Eventually, after many thousands of years, small communities of Indians prospered and grew into complex civilizations: first the Olmec, then the Maya, and later the Aztec.

The gold and other riches of the Aztecs attracted Spanish conquerors to the New World, and Spanish colonists followed. During the 300 years of Spanish colonization, many Indians adopted the Spanish language and the Spanish religion, Catholicism. And many married Spaniards, so Mexicans today may be descendants of Spaniards, of Indians, or of both.

Mexico won its independence from Spain in 1821. A century later a revolution and a long civil war led to the formation of a federal republic, the United Mexican States—or Mexico for short. Mexico comprises thirty-one states and a federal district surrounding the capital city. The federal government has a bicameral legislature and an executive branch headed by a president.

The Mexican Economy

Mexico is one of the most developed of the developing countries. With vast reserves of oil and natural gas that rival those of Saudi Arabia, it is rapidly becoming even better off. As a result, the incomes and living standards of millions of Mexicans are comparable with those of people in the developed countries. But the incomes and living standards of millions of other Mexicans are comparable with those in the poorest developing countries. There really are two Mexicos: one is modern and affluent; the other is traditional and poor. Narrowing the gap between them will not be easy, because Mexico's population is growing rapidly.

The land of Mexico varies greatly, with deserts in the north, mountainous plateaus and highlands farther south, and tropical plains in the east. Parts of the country have fertile soil and get enough rainfall to make them

World Bank Photo Library — Todd Webb

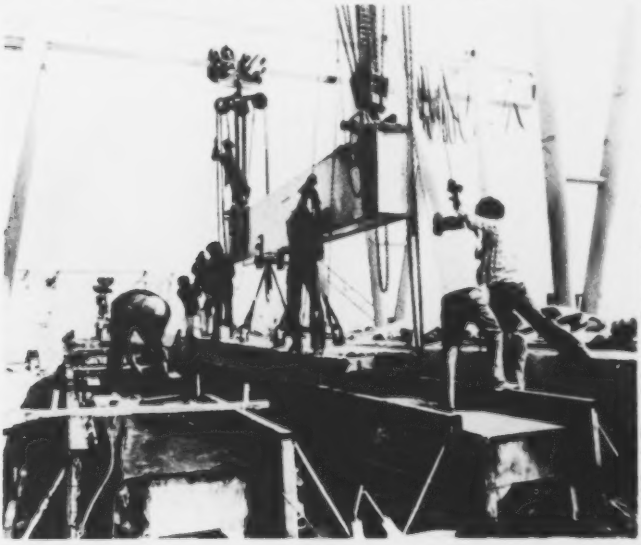
suitable for farming. Other parts get less rain, but if the land in such semiarid areas is irrigated, it can be used for modern farming. Without irrigation, such land is suitable only for ranching or for growing corn, beans, and other traditional crops on small farms.

As a result of these conditions, some Mexican farmers are rich and others are well off, but most are poor. The owners of modern farms, such as those in the northern and northwestern parts of the country, have had their land under irrigation for decades and use the latest farm machinery. Their farms produce corn, cotton, wheat, alfalfa, beans, fruits, and vegetables. Most of these products are sold in Mexico; some are exported. But four-fifths of Mexico's farmers work on small farms that have poor soil. Many of them produce barely enough corn and beans to feed their families.

In addition to land, Mexico's natural resources include oil, copper, mercury, silver, natural gas, and numerous other metals and minerals. Mexico is the world's leading producer of silver and mercury—and is among the lead-

ing producers of sulphur, oil, copper, and salt. To develop these resources, the country has built highways, railways, communications systems, air and sea ports, and electrical power plants.

The country's coal and iron ore feed a modern steel industry. The steel is used to construct bridges and large buildings and to produce cars, other vehicles, and factory machinery. The oil and natural gas deposits make it possible for Mexico to produce chemicals used to make fertilizers and to refine gasoline and heating oil. In addition, Mexico manufactures glass, textiles,



World Bank Photo Library—Guiseppe Franchini

radios, television sets, and other consumer products ranging from medicines to soft drinks. This manufacturing activity provides employment to many Mexicans, especially those who are educated and skilled. But there still is a vast pool of unemployed people in most Mexican cities.

Given its wealth of natural resources and its advanced industry and agriculture, Mexico is active in foreign trade. Its principal trading partner is the United States, but trade with Japan, France, Germany, and a number of developing countries has been steadily growing. Cot-

ton, sugar, coffee, and sulfur were for decades the country's main exports. Today the exports of other food products, manufactured products, and crude oil are the most important. Because of its exports, Mexico can import many of the things it needs to continue developing its economy—tools, vehicles, electrical equipment, and industrial machinery.

Economic Development Today

Economic development involves producing more goods and services (economic growth) and distributing them more fairly (economic equity). It is the process by which countries try to improve the living conditions of their people. In Mexico economic growth was rapid between 1940 and 1970. Then growth slowed, as the country ran into severe economic problems. The development of oil and natural gas, along with some new government measures, helped to restore growth by the end of the 1970s. But growth slowed down again with the international recession of the early 1980s.

Mexico's present development plan calls for further growth in industry and agriculture. It also provides for steps to assist Mexico's poor and to reduce the rate of population growth.

To spur industrial growth, the Mexican government is doing what it has done for decades, only on a much larger scale. It is continuing to build roads, ports, and power plants. It is also encouraging the manufacture of consumer goods and products made from oil and natural gas. These efforts make it possible for private businesses to expand their operations and to provide more jobs.

The government is also taking steps to ensure that the urban poor have the education and health they need to hold jobs. It is providing people in urban slums with schools, health care, clean water, and sewers. And it is increasing public transportation in cities so that people can get to work.

Inter-American Development Bank

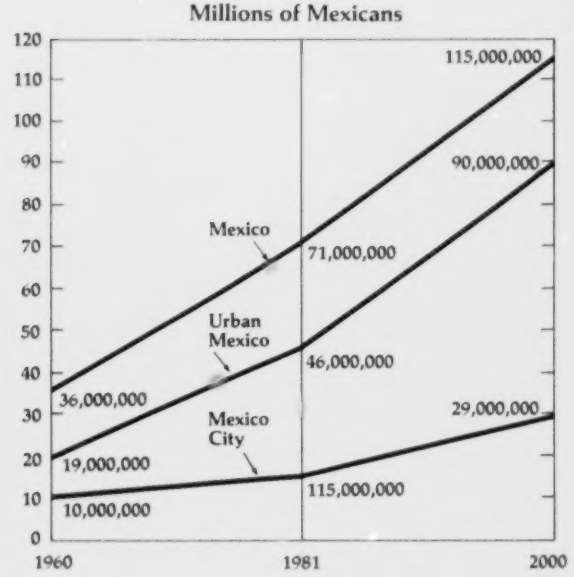
To strengthen agriculture, the Mexican government is assisting small-scale farmers, most of whom are very poor. It is teaching them ways to increase production and giving them loans so that they can buy fertilizer, insecticide, and better seeds. It is installing irrigation systems in areas where poor farmers live and improving roads to make markets more accessible. And it is bringing electricity and clean drinking water to many villages, along with schools and health clinics.

The development of industry and agriculture often slows down the rate of population growth. But the government of Mexico is also attacking its population problem directly. In newspaper articles and radio and television programs, it is informing people of the problems that rapid continued population growth will create. It is also providing family planning services in urban hospitals and rural health clinics.

To pay for all these activities, the Mexicans are relying principally on their own resources. They are also receiving loans from outside Mexico. Commercial banks in the developed countries are the main source. Other sources are the governments of the developed countries and such international organizations as the World Bank and the Inter-American Development Bank.

What, then, are the prospects for Mexico? One thing is certain: the production of goods and services must continue to grow rapidly. The increased revenue from exports of oil and gas will help. And Mexico will still rely on loans from the developed countries. But loans will be harder to arrange in the uncertain world economy of the early 1980s.

Economic growth alone is not enough, however. The living conditions of poor Mexicans must be improved, too. More jobs, education, health care, and pure drinking water must be provided in both urban and rural areas. And the population must stop growing so rapidly. There probably will be more than 40 million more Mexicans in 2000 than in 1981.



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Tackling Poverty in Rural Mexico

A Case Study of Economic Development

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The World Bank is an international organization owned by nearly 150 countries. Its work is to help poor countries in their efforts to improve the living conditions of their people. It does this by lending money to these countries for development projects. The International Development Association, which is part of the World Bank, makes interest-free loans to the world's poorest countries. The World Bank began to operate in 1946; the International Development Association was founded in 1960. Their loans to developing countries now amount to about $14 billion a year.

This book is part of Learning Kit No. 4 in the World Bank's series of multimedia kits about economic development, TOWARD A BETTER WORLD. Other materials in the kit are a filmstrip, an economic summary of Mexico, and a teaching guide. Other kits in the series are listed on page 4 of the teaching guide. Bruce Ross-Larson and Harriet Baldwin are the authors of this case study. Carol Crosby Black designed the cover and layout. The statistics, figures, and maps were prepared at the World Bank. The views and interpretations of this book are those of the authors and should not be attributed to the World Bank, to its affiliated organizations, or to any individual acting on their behalf. The denominations used in the maps and the boundaries shown do not imply, on the part of the World Bank and its affiliates, any judgement on the legal status of any territory or any endorsement or acceptance of such boundaries.

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Pronunciation Guide

People

Hernando Cortes	Ehr-*nan*-doh Core-*tez*
Manuel Ruiz	Mahn-*well* Roo-*eez*
Pedro Vasquez	*Peh*-droh *Vas*-kez

Places

Aguascalientes	Ah-gwahs-kahl-*yen*-tess
Alzalan	*Ahl*-zah-lahn
El Llano	Ell *yah*-noh
Puebla	*Pweh*-blah
San Jose del Rio	Sahn Hoh-*seh* dell *Ree*-oh
Villa Juarez	*Vee*-yah *Hwar*-ez
Zacapoaxtla	Zah-kah-*pwahks*-tlah

Other

Aztec	*As*-tek
BANRURAL	Bahn-roo-*rahl*
campesino	kahm-peh-*see*-noh
CONAFRUT	Koh-na-*froot*
CONASUPO	Koh-na-*soo*-poh
ejidatario	eh-hee-dah-*tar*-yoh
ejido	eh-*hee*-doh
mestizo	mess-*tee*-zoh
peso	*peh*-soh
PIDER	Pea-*dehr*
Programa Integrado de Desarrollo Rural	Pro-*grah*-mah In-teh-*grah*-doh deh Dess-ah-*roy*-yoh Roo-*rahl*

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Chapter One

The Setting

Pedro Vasquez has lived all his fifteen years in San Jose del Rio, a village in the Mexican state of Aguascalientes. The eldest of seven children, he lives with his family in a three-room house that his father built many years ago with the help of neighbors.

Except for fiestas and the good times after harvests, life in San Jose del Rio does not change much from day to day. The men farm the land, raising the corn and beans their families eat. The women tend the children, haul water to their houses, and prepare the food. The children work around the house and in the fields as soon as they are able. A few of them go to the school in Villa Juarez, ten kilometers away.

Pedro had to stop going to school in Villa Juarez after he finished the third grade. The family was getting bigger, and his father needed Pedro's help on the land. Since then, Pedro has spent much of his time working with his father. But in the late afternoons he meets with his friends—sometimes to play basketball at a makeshift court, other times just to talk outside the only shop in the village.

Pedro has an idea of what the future holds for him in San Jose del Rio. Most young people marry and settle down there or in nearby villages. Some of them leave and go to Aguascalientes, the capital of the state. If they are lucky, they get jobs. If not, they come back after a while. One of Pedro's neighbors, several years older, went to Mexico City a few years ago and found work as a taxi driver. Pedro sometimes thinks about going to Aguascalientes or Mexico City, too. But he knows he

probably would not have enough money to tide him over until he found a job.

Sometimes Pedro hears the men in the village talk about the big farms along Mexico's west coast. Equipped with irrigation and modern farm machinery, those farms produce fruits, vegetables, and grains—such as wheat and rice—for Mexican markets. Some of their products are exported to the United States. Farmers go there from all over Mexico to get temporary work during the plant-

Many children in rural Mexico have an early initiation into a life of hard work and few material rewards.

ing and harvesting seasons because the pay is good. A few go every year from San Jose del Rio. Pedro would like to go, too, but his family cannot afford the bus fare.

Pedro knows that Mexico is advancing in many ways, and he wants to share in its advance. A way to do so, he thinks, is to leave San Jose del Rio. Once he talked with his father about going to Aguascalientes, or to Mexico City, or to the farms in western Mexico. "I could make a lot more money there," Pedro said.

"Stay in San Jose," his father told him. "Our family has always lived here. It has always been good enough for us. And life here is better than it was a few years ago."

Pedro Vasquez is descended from a long line of poor peasant farmers in Aguascalientes. Like most Mexicans, he is a *mestizo:* part Indian and part Spanish.

Half of his heritage can be traced to the Aztecs, who

For centuries poor Mexican farmers have worked hard to eke out a living on the land.

founded one of the early civilizations in Mexico. The Aztecs constructed massive pyramids for worshiping their gods, and they laid out and managed large cities. The capital of the Aztec empire was a city of hundreds of thousands in the early 1500s.

The other half of Pedro's heritage can be traced to the Spaniards, who began coming to New Spain after Hernando Cortes and his army conquered the Aztecs in 1521. For three centuries Pedro's ancestors lived under

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Spanish rule as they had always lived—farming the land. They were called *campesinos*, the Spanish word for farm workers. The land belonged to wealthy landlords, who claimed a big part of everything the campesinos produced. The campesinos thought things might change when Mexico fought for and won its independence from Spain in 1821. Many things did change, but not for them.

For the next ninety years, Mexico was a land of emperors, dictators, and revolutionaries competing for power. Pedro's great-grandfather fought in the revolution that toppled the last of them in 1910. He and others like him hoped that life for the campesinos might finally begin to improve.

At first, the prospects were bright. In the aftermath

The poor treatment of campesinos, portrayed here in a mural by a Mexican artist, was one thing that led to the revolution of 1910.

of the revolution, the new government took over many of the big farms and ranches that the campesinos had worked for wealthy landowners. Then the land was divided into small farms and given to the campesinos. Some parcels of land were issued to individual families. Others were given to *ejidos*, farm communities of a hundred or so families who own land jointly. San Jose del Rio, where Pedro lives, is an ejido. A lot of land was transferred in these ways, but many large farms and ranches stayed in the hands of the rich.

Between 1910 and 1970 agricultural production on many big farms and ranches—and some ejidos—increased dramatically. But until the 1970s little happened to change the lives of most campesinos.

For centuries children in rural Mexico have watched their parents to learn the tasks they would one day perform.

Chapter Two

Doing Something for the Campesinos

Agriculture has always been important in Mexico's economy. After the Second World War, the Mexican government took many steps to strengthen agriculture further. It built roads and irrigation systems and supplied electricity to farms. It conducted research on soil conditions and plant varieties, and made efforts to conserve and improve the soil. It ran training programs to teach farmers modern farming techniques. Loans were made to farmers so they could buy seed, fertilizer, insecticide, and modern tools and machinery. Warehouses and marketplaces were built so that agricultural products could be more easily stored and sold. As a result of these measures, agricultural production in Mexico soared in the 1950s and 1960s, and the incomes of many farmers rose rapidly.

But the majority of the 25 million people in rural Mexico were left behind. Living in isolated pockets throughout the country, they had few schools and little health care or electricity. They were working poor land and relying on farming methods used for centuries.

In the early 1970s the Mexican government decided that it had to do more—much more—to improve the lot of the campesinos. The key, officials agreed, did not lie in creating jobs that poor farmers might fill if they moved to cities: the cities already were overcrowded. It lay instead in helping poor farmers to help themselves where they were—in the countryside.

The government agencies responsible for strengthening agriculture had not been doing enough in parts of the country where poor farmers lived. Instead, they de-

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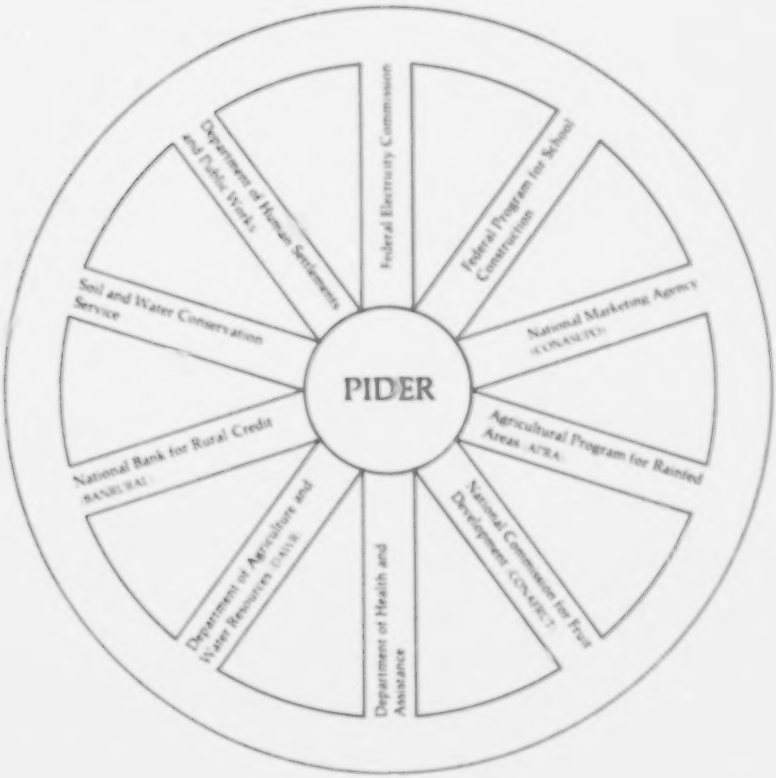
voted most of their staff and money to places having greater promise—such as the farmland in the northwestern part of the country. And in many instances the agencies had not been working together. Sometimes the plans of one agency would fail because a second agency did not provide help when it was needed. Sometimes two agencies would develop similar plans for one valley, yet do nothing at all in a neighboring valley. So the Mexican government drew up a program that would bring the activities of all these agencies together in a way that would help the campesinos.

Started in 1973, the new program is called PIDER. The name comes from the first letters of the official Spanish title of the program: "Programa Integrado de Desarrollo Rural," which in English means "Integrated Program for Rural Development." PIDER's goal is to improve the lives of poor rural families throughout Mexico. It is working to achieve this goal by getting government agencies to do more in areas that have been neglected.

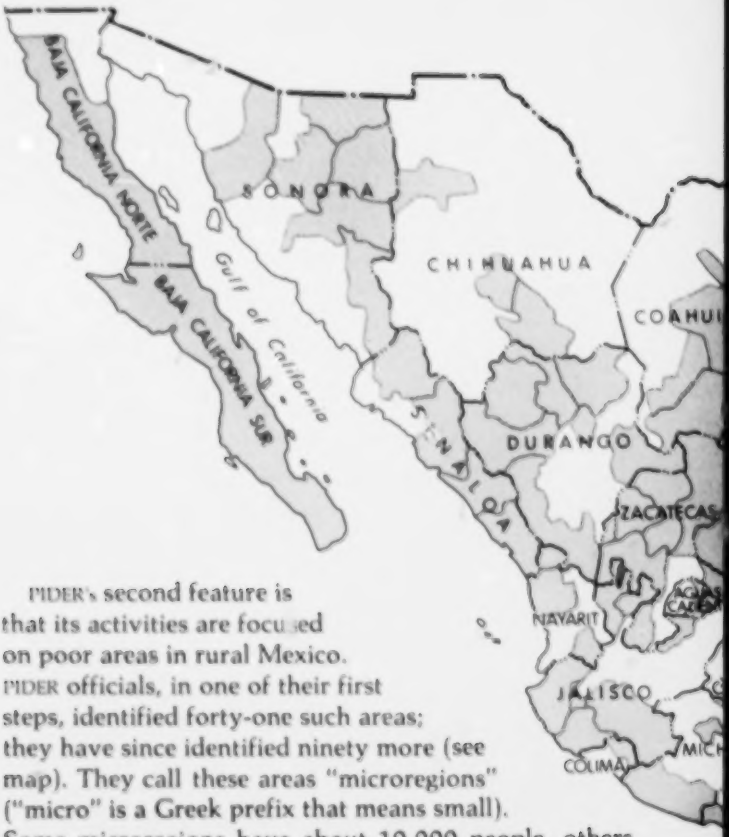
Under the PIDER program, the National Marketing Agency (CONASUPO) is building warehouses so that more farmers can store their produce and prepare it for shipment.

Figure 1. PIDER at the Hub of Activity


PIDER
Federal Electricity Commission
Federal Program for School Construction
National Marketing Agency (CONASUPO)
Agricultural Program for Rainfed Areas (APRA)
National Commission for Fruit Development (CONAFRUT)
Department of Health and Assistance
Department of Agriculture and Water Resources (SARH)
National Bank for Rural Credit (BANRURAL)
Soil and Water Conservation Service
Department of Human Settlements and Public Works

Features of PIDER

PIDER has three important features. The first is that it is not another big government agency. Instead, it is a program of an existing agency—the Department of Programming and Budgeting (DPB). The DPB provides money under the PIDER program for planning and carrying out activities that develop rural areas. But the activities are carried out by other agencies already working in these areas. So the PIDER program is like the hub of a wheel: it coordinates the efforts of many agencies (see Figure 1).

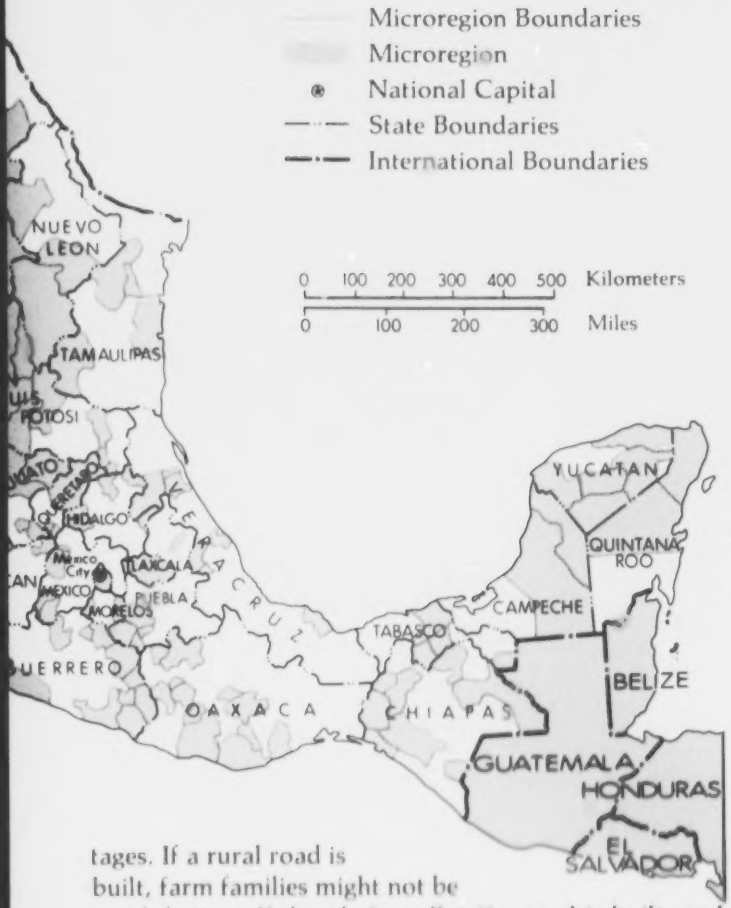


PIDER's second feature is that its activities are focused on poor areas in rural Mexico. PIDER officials, in one of their first steps, identified forty-one such areas; they have since identified ninety more (see map). They call these areas "microregions" ("micro" is a Greek prefix that means small). Some microregions have about 10,000 people, others close to 100,000. Altogether there are roughly 6,000,000 people in the PIDER microregions.

When PIDER started, basic services were either lacking or deficient in all microregions—such services as roads, schools, health centers, electricity, farmer-training programs, and banks that would make loans to poor farmers. As a result, farmers in these microregions could not produce much on their land, and their average income was a small fraction of the national average.

The third important feature of the PIDER program is that it covers many aspects of rural life. Development projects that use this approach are called "integrated rural development projects." It is easy to see their advan-

Microregions of the PIDER Program



tages. If a rural road is built, farm families might not be much better off than before. But if a road is built, *and* farmers are trained in modern methods, *and* loans are provided so farmers can buy better seed, tools, and fertilizer, *and* if warehouses are built to store produce, *and* so on—if all these things are done, poor farm families will have a good chance to advance.

How PIDER Works

In each state the Department of Programming and Budgeting (DPB) has a representative who assists the state government in carrying out the PIDER program for that state. There is also a PIDER coordinator in each microregion. The state DPB officials, the PIDER microregion coordinators, and the representatives of other agencies meet with communities in the microregions and ask them to list their needs. Together, these officials draw up plans for activities that can meet community needs and be paid for with PIDER funds. After the communities agree to the plans, the DPB officials and the PIDER coordinators see to it that the agencies cooperate in carrying out the activities planned for each community.

The plan for a microregion might include a road for one village, an irrigation system for another, a warehouse and market for a third, and so on. Or it might include several related activities in a few communities: farmer-training programs, loans that enable farmers to buy high-yielding seeds, and the construction of roads and schools.

Suppose that the plan for a microregion includes having farmers in a community begin to grow avocados. Farmers would already be growing beans, potatoes, and corn. They would harvest enough to feed their families, and they would have only a little left over to sell. But if they grew avocados, they could sell them and their incomes would rise. Introducing avocados into such a community sounds simple: bring avocado saplings into the village and have farmers plant them. But it is not that simple.

To begin with, experts from the Department of Agriculture and Water Resources have to do some research to see what variety of avocado will grow best in the area. Then the manager of a branch of BANRURAL, the National Bank for Rural Credit, must be contacted. He has to agree to make loans to farmers so they can buy the saplings and perhaps build a small-scale irrigation system. CONAFRUT, the National Commission for Fruit Development, has to bring in the saplings when farmers are

ready to plant them. The Department of Agriculture and Water Resources, along with CONAFRUT, has to assign field-workers to the village to give farmers advice after the trees are planted.

The PIDER coordinator for the microregion has to make sure that all these things are done—and done in the right sequence to avoid bottlenecks and delays. The agencies, on the other hand, have an added burden because they work not only on the PIDER program, but on their regular programs for farmers outside the PIDER microregions.

The need for coordination is clear. The avocado project just described might be only one of several projects under way in the village. The village might be only one of perhaps a hundred in the microregion. The microregion might be only one of three or four in the state and one of more than a hundred in the country. And the importance of PIDER is clear. Without PIDER officials to coordinate the work of all the agencies, much less would be done for poor farm families in the microregions.

The National Commission for Fruit Development (CONAFRUT) nurtures avocado saplings at its nurseries until farmers are ready to plant them.

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Paying for PIDER

The Mexican government decided it would spend $1,700,000,000 on the PIDER program between 1973 and 1981. It increased the amount to $2,500,000,000 in the late 1970s. To help meet part of the cost, the government applied for some loans from international organizations. It received $40,000,000 from the Inter-American Development Bank in 1975. It received $110,000,000 from the World Bank in 1975 and $120,000,000 more in 1977. And it received $22,000,000 from the International Fund for Agricultural Development, an agency of the United

PIDER has made it possible for many farmers to get loans to build chicken coops—and have a regular source of protein and income.

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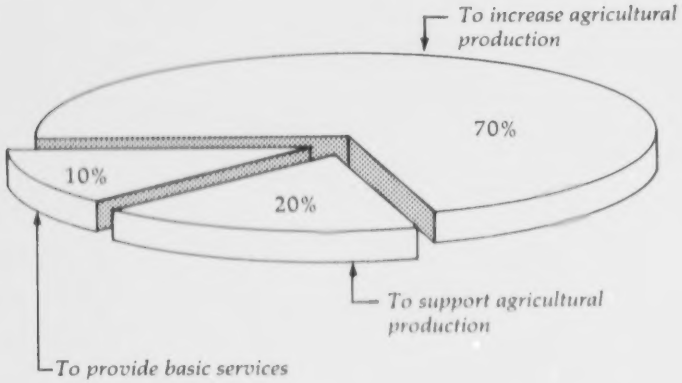
Figure 2. Where the Money Goes



Nations, in 1980. These loans have made it possible for PIDER to step up its activities in many microregions.

PIDER spent about $450,000,000 in 1981. It will have to spend even more in the future if it is to extend its work in all the microregions.

How is the money spent? It goes for three sets of activities in PIDER microregions (see Figure 2). Most of the money—about 70 percent of it—helps people in farm communities do things that will increase agricultural production. For example, irrigation networks are being built, livestock raised, fruit trees planted, small industries set up, and ways found to conserve soil and water. In addition, loans are being made to individual farmers and to groups of farmers to help them improve their land.

About 20 percent of PIDER's annual budget is for activities that support agricultural production: building roads that link villages to market towns, enlarging market facilities, extending electric power lines, and training farmers. The remaining 10 percent goes for building schools, health centers, and village water systems.

Many different activities are under way at the same time in PIDER's microregions. In the chapters that follow, a few of PIDER's activities are described in detail.

Chapter Three

Getting Water Out of the Ground in Aguascalientes

San Jose del Rio, where Pedro Vasquez lives, is an ejido that was formed after the Mexican revolution of 1910 (see map). The farmers who belong to the ejido are called *ejidatarios:* they own the land jointly, but each has a plot for his family to farm. Much of the ejido's land is too poor to be used for farming.

Pedro was a young boy when PIDER officials first came to San Jose del Rio in 1973. He doesn't remember their visit, but he has heard about it many times from his father and others in the ejido. His father takes almost any opportunity to tell the story.

"We had heard about PIDER. We'd heard that our ejido was part of something called the El Llano microregion and that people in the microregion were going to get special help from the government. We didn't pay much attention to the rumors, though. We had seen government people in San Jose del Rio, but they would come once and then not for a long time. We thought the people from PIDER would be the same. They were holding meetings in communities nearby, telling people how PIDER would be different. When they said they wanted to meet with us, we almost told them not to bother.

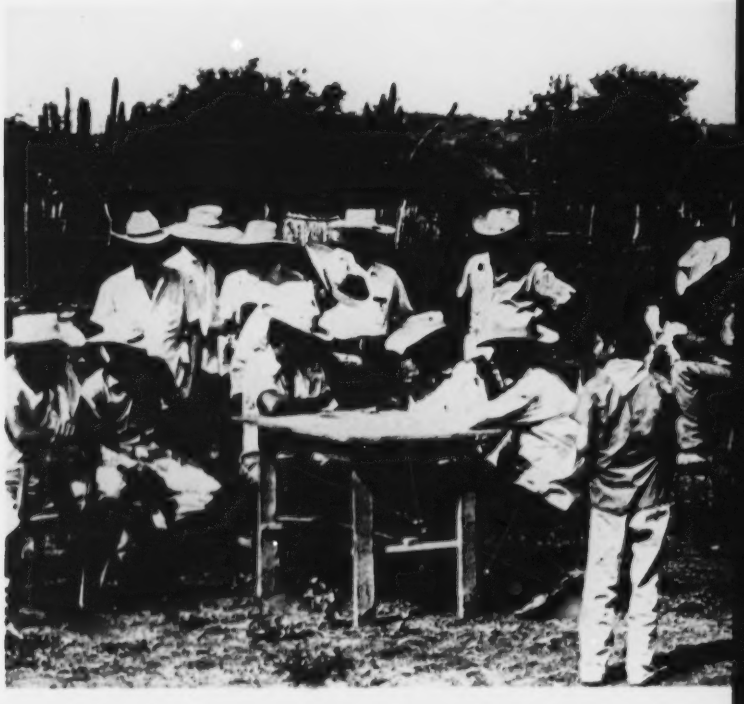
"But we decided to meet with them after all. At our first meeting, they asked us many questions. 'Do you want to learn to grow new crops so you won't have to pin all your hopes on corn? Do you need bank loans so you can buy fertilizer and tools? Do you need a better road and a school? Irrigation works and electricity?' We said we needed all those things.

"Then they told us they would help us get some of them. I stood up and said, 'We've talked to government

The El Llano microregion covers about 2,500 square kilometers in the eastern half of Aguascalientes, one of the smallest states in Mexico. Most of the land is semiarid, with rainfall averaging only 400–600 millimeters a year. The microregion has about 75,000 rural inhabitants.

officials before. They all tell us that things take a long time because nothing is simple. One official tells us he can't do something until another official does something else. And then they have to get approval from Mexico City.'

"The people from the PIDER program said they understood how we felt. But PIDER, they said, would be different. We all laughed. It was getting hot, so we asked them to have a cold drink with us at the cantina. After some more discussion, we agreed to meet with them again. They told us to decide on what we needed most. They'd come back in a week to talk some more."



When PIDER officials came to San Jose del Rio the first time, there was more curiosity than interest.

There was lots of talk among the ejidatarios before the PIDER officials returned. Most ejidatarios agreed that what San Jose del Rio needed most was an irrigation system. Not much rain falls in Aguascalientes, but there is plenty of water underground. What the ejidatarios lacked were deep wells, pumps to draw the water up, and pipes to carrry it to their fields. But to get these things would cost much more than the ejidatarios could put together.

When they met with the PIDER officials the next week, the ejidatarios told them that they wanted an irrigation system. The officials tried to dissuade them.

"Why not start with something less difficult?" the officials asked. "How about bringing electricity to the

village?" That could be done quickly and easily. For an irrigation system, however, the ejidatarios would have to make many decisions and work with many government agencies. And they would have to pay part of the cost, about a third. PIDER would pay the other two-thirds. The ejido probably could get a bank loan, but it would have to be repaid. How did the ejidatarios feel about having to do all that?

The ejidatarios held firm. "We can't grow much more corn until we have more water," they said. The people from PIDER had asked the ejidatarios what they wanted most, and the ejidatarios told them. An irrigation system, and that was that. A few ejidatarios didn't even want an irrigation system, and they drifted away from the meeting. After a lot more discussion and arguing, the PIDER officials agreed to help the thirty-two remaining ejidatarios plan an irrigation system and build it.

Pedro's father, and many other ejidatarios of San Jose del Rio, felt that an irrigation system was what they needed most.

Plans and Decisions

"The PIDER people were right about the irrigation system involving a lot of decisions," Pedro's father says, continuing with the story. "We were always having to make decisions—arguing among ourselves and discussing things with government officials. Each decision was tougher than the last. It went on and on—for three months. Sometimes we thought the irrigation system wasn't worth all the trouble."

The first decision the ejidatarios had to make was what part of their land to irrigate. As in all Mexican ejidos, the land belonged to the community, and each family had a plot to farm. But much of the land was not being

used. The ejidatarios quickly agreed to build the irrigation system in a large unused area known to have plenty of water far beneath the surface.

Then there was another decision. Should the irrigated land be divided into small plots that would be tended by each family? Or should everyone farm it together? At first, most of the ejidatarios—Pedro's father was among them—felt that each family should farm its own plot. "We have always done it that way," they said. "Why should we change?" But if the irrigated land were divided, some plots would be better than others. And what if someone neglected his plot? Would it be divided among the others? How?

In the end the ejidatarios agreed that they would farm the land as a group. They knew that there would be records to keep. And they would have to set up a system for transporting produce, selling it, and sharing the proceeds. But farming as a group would be less risky.

Then a new question arose: How much land should be irrigated? Two things had to be taken into account. The first was the amount of irrigated land the ejidatarios felt they could handle. They already had their own rainfed plots to care for. How much additional land could they farm? The ejidatarios decided that they could each handle a hectare of the irrigated land without difficulty, maybe two hectares, since they would be working together. There were thirty-two ejidatarios: that meant an irrigated area of thirty to sixty hectares. But how large, exactly, was the area to be?

The second thing to take into account was the cost of the system. The ejidatarios had to decide this because they had to pay a third of the cost. Obviously it would cost more to irrigate sixty hectares than thirty. Perhaps even thirty hectares would cost too much.

Up to this point, the ejidatarios had talked only with PIDER officials. But when they needed to figure out the cost of the system, representatives of the Department of Agriculture and Water Resources (DAWR) joined the discussions. The people from the DAWR knew what the charges would be for hiring equipment to drill the wells.

They also knew what it would cost to buy and install the pumps, generators, well covers, storage tanks, and pipes to bring water to the surface and lead it to irrigation ditches.

After talking with the ejidatarios and surveying the land, the people from the DAWR went back to their office in Aguascalientes and did some calculations. A week later they returned to tell the ejidatarios what it would cost to irrigate thirty hectares, forty-five hectares, and sixty hectares.

"Then the people from PIDER came back into the act," continues Pedro's father. "They told us that we couldn't decide whether to irrigate thirty, forty-five, or sixty hectares until we had thought about the bank loan needed to pay for the system.

"They reminded us that we were going to have to pay a third of the cost of the system. We would be able to get a loan, but they wanted to know how much we would be able to pay back each year. We laughed and told them we were experts in paying back loans. We were always paying back the shopkeeper in San Jose del Rio. Then they asked, 'How much can you pay back each year for twenty-five years?'

"The whole project nearly fell apart then," Pedro's father continues. "'Twenty-five years!' we shouted. 'What kind of loan is that?'

"All along we thought we'd have an irrigation system in three months. By this time, three months had passed and there wasn't a drop of water in sight. We began to holler about all the promises the people from PIDER had made. We reminded them of their smooth talk about no red tape.

"But the people from PIDER told us not to worry so much about the loan. If we had twenty-five years to repay, we would not have to pay much each year. And during all those years, we'd be earning more from our crops because we'd be growing more. It made sense, and we finally calmed down. But on that day, and I remember it as though it were yesterday, the plans for the irrigation system almost stopped dead."

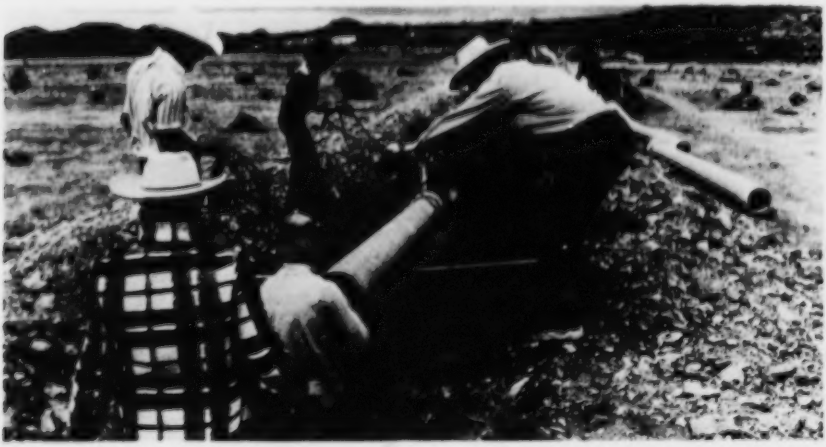
The DAWR officials helped the ejidatarios figure out how much they could pay on a loan each year. Then the officials did some calculations. The amount of the loan the ejidatarios could afford would be enough to build a system to irrigate forty-five hectares. PIDER would pay the DAWR twice the amount of the loan to cover its share of the cost of the system. The total cost would be a little more than one million pesos, or about $45,000.

PIDER made it possible for the ejidatarios of San Jose del Rio to hire a contractor to drill the two wells.

After this decision was made, things became easier. The PIDER officials approved the irrigation project and helped the ejidatarios present the plan to the branch office of BANRURAL, the National Bank for Rural Credit, in Aguascalientes. The ejidatarios participating in the project had to sign the loan application. "And all of us went," Pedro's father remembers, "to sign the papers at the BANRURAL office in Aguascalientes. It was a big event."

Work Begins

Although Pedro has only heard from others about all the discussions and decisions, he remembers clearly all the activity when the irrigation system was being built. Engineers driving a truck bearing the insignia of the DAWR spent several days in San Jose del Rio surveying the land. The DAWR also arranged for a private company to bring in equipment to drill the two wells. After this, pumps were installed on both wells along with diesel generators to power them. Then the people from the DAWR returned to supervise the ejidatarios as they dug trenches and laid pipes.



All ejidatarios participating in the project, and many of the older boys, helped to build the irrigation system.

Pedro's father was very busy during this time. He was the head of the ejido, and he had to make sure that the ejidatarios were where they were supposed to be when there was work to be done. He had the older children help whenever they could. The PIDER coordinator for the El Llano microregion was very busy, too, making sure that every agency involved in building the irrigation system was doing what it was supposed to do.

Finally, one day, everyone in San Jose del Rio gathered around one of the wells. Four people joined hands—Pedro's father, the El Llano microregion coordinator,

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the branch manager of BANRURAL, and one of the DAWR engineers. They turned the crank to start the generator, and the pump began to churn. Water soon filled one of the storage tanks and flowed out of a pipe into the ditches in one corner of the field. Everyone cheered. Pedro remembers splashing some of the water on his face and clothes.

There had been few such days in San Jose del Rio. The excitement continued as the generator was started up at the other well. At last, the pumps had filled the storage tanks, and water had reached most of the irrigated area. The wet, brown earth was a refreshing sight.

The ejidatarios decided to plant most of the land in corn and beans, crops they had always raised. A field-worker from the DAWR showed the ejidatarios how to improve the planting of corn and how much fertilizer to use. The first harvest from the irrigated land was a big improvement over what the ejidatarios were used to. Their families had more to eat, and there was a surplus to sell in the market in Aguascalientes. Then they decided to grow chilies, the hot peppers used as a spice in Mexican cooking. Soon they were selling chilies in Aguascalientes, too.

To help the ejidatarios earn even more, a representative of the DAWR suggested that they consider growing grapes. It would be a few years before the vines would begin to bear fruit, he said. Not much could be grown on the land planted with vines in the meantime. And the ejidatarios would have to get a loan from BANRURAL in Aguascalientes to pay for the vines and insecticide they would need. There would be less income for a while. But the ejidatarios knew that grapes would bring a good price and quickly make up for the income lost.

So the PIDER coordinator arranged for CONAFRUT, the National Commission for Fruit Development, to work out a plan for a vineyard on ten hectares—about a fifth—of the irrigated land. He also helped the ejidatarios to get the loan they needed. The ejidatarios prepared the land, and CONAFRUT delivered the vines and supervised the planting.

By 1979, three years after the irrigation system was completed, the irrigated land was in full swing. The ejidatarios could farm all year round, producing two, sometimes three, crops a year on land that had produced nothing three years earlier. There was more food for everyone in the ejido, and some extra to sell. There was money coming in from the sale of chilies. And the vines produced their first grapes.

The money the ejidatarios get from the sale of crops grown on the irrigated land goes into a common fund. From that fund they make payments for seeds, fertilizer, insecticide, and hired labor, as well as for principal and interest on their loans. From the amount left over, they find they can pay themselves about 110 pesos (about $1) for each day they work on the irrigated land. Older boys in the ejido—such as Pedro—are paid half that. There is some money left over each year, and the ejidatarios are saving it for another improvement. They want

Land that once had little worth has become a new source of income and wealth to the ejidatarios.

to bring electricity to the ejido, and they already have begun to make plans with the El Llano microregion coordinator.

Pedro hardly remembers what it was like in San Jose del Rio before the irrigation system was built. After all, he was very young. But he knows that things have changed. People have more money now, and they feel that things will get better. His mother tells him that when electricity comes, a pump might be installed on the well where she gets the family's water. Then she won't have to spend so much time hauling water up by hand. More important, she will have more water for the garden behind the house.

Even Pedro has a little money now from working on the irrigated land. And it is possible that he will earn even more. The men in San Jose del Rio say that PIDER may arrange to improve the road from the village to the main road that leads to Aguascalientes. Pedro hopes the rumor is true, because he would like to get a job working on the road.

Chapter Four

Setting Up Demonstration Plots in Zacapoaxtla

The Zacapoaxtla microregion, extending over rugged, mountainous terrain, is one of the first places that PIDER officials began to work in the early 1970s (see map). It is obvious why the area was selected for special attention. The topsoil was badly eroded. There were few roads. People in one valley had little contact with people in the next, and even less with people outside the region. Few villages had schools, health clinics, or electricity. Half the people were illiterate, and a quarter were Indians who spoke no Spanish. Densely populated by extremely poor people, the land was hard-pressed to produce enough food. Most farmers could grow only enough corn, beans, and potatoes to feed their families.

In drawing up a long-term plan for developing the Zacapoaxtla microregion, PIDER officials knew that the first step was to teach farmers how to produce more on their land. Production could increase if farmers would begin to use some new farming methods. But the officials also knew that poor farmers usually are reluctant to change the way they farm. "We have always farmed the way we farm today," poor farmers are likely to say. "And so did our fathers. We may not grow much, but we are sure of getting a crop. If we do something different, the crop might fail, and our families would starve."

How could poor farmers in the microregion be persuaded to adopt new farming methods? This was one of the first questions PIDER officials had to deal with in the Zacapoaxtla microregion.

The Zacapoaxtla microregion, 150 kilometers east of Mexico City, covers about 600 square kilometers in the northern mountainous part of the state of Puebla. The microregion has roughly 75,000 people in 100 rural communities. It gets its name from the town of 40,000 inhabitants at its heart.

The Ripple Effect

Just as a stone dropped in water sends out ripples in all directions, so a change that works on one farm will spread to other farms nearby, then to others. The key to setting the ripple effect in motion is demonstrating to farmers that a particular change can produce a bigger

Manuel Ruiz was confident that a few simple changes in the way people farmed would make a big difference in their lives.

harvest. This is done by setting up "demonstration plots" on small plots of land in farm communities. When farmers see the greater harvest produced by the new methods on the demonstration plots, they become more willing to try the new methods—at least on part of their land. If their harvests increase, they talk with other farmers about their success, describing what they did to achieve it. Then the other farmers may decide to try the new methods, too, and the ripple effect is at work.

To set the ripple effect in motion in the Zacapoaxtla microregion, PIDER officials got in touch with the Agricultural Program for Rainfed Areas (APRA), one of the government agencies that works in PIDER microregions. APRA had trained many field-workers. Its director agreed to start a special training program for the field-workers who would set up demonstration plots in the Zacapoaxtla microregion.

Manuel Ruiz Gets Started

APRA selected seven agricultural economists for the new training program. Manuel Ruiz, a graduate student at the National Agricultural University in Mexico City, was one of them. Manuel and the other members of the team spent four months at APRA's training center in Puebla, the capital of the state, about 100 kilometers from the Zacapoaxtla microregion. They studied the agricultural conditions of the microregion and learned about how to work with farmers.

During this four-month period, Manuel made frequent

It was planned that Manuel and his colleagues would reach 3,000 of the microregion's 12,000 farmers in their first three years.

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trips to three valleys in the northern part of the microregion. Later, he would return to these valleys and start setting up demonstration plots. He analyzed samples of soil from various parts of the valleys, but mostly he talked with farmers. How did they farm the land? When did they plant? How far apart did they place the seeds? What seeds did they use? What problems did they run into? How much corn did they get at harvest time?

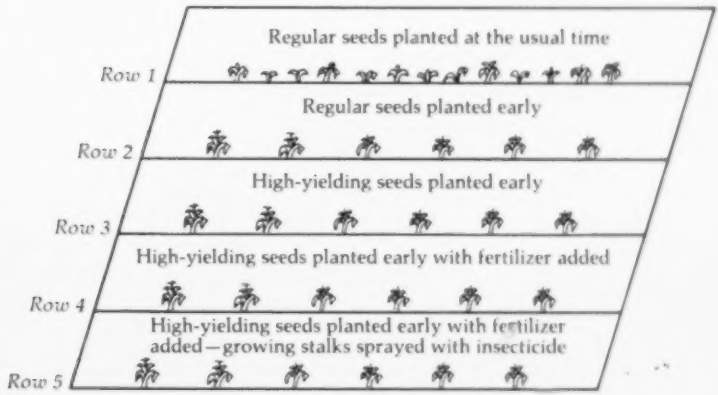
As part of his training, Manuel compared his experiences and findings with other members of the APRA team. After many sessions with his instructors, Manuel decided what he would try to show farmers on the demonstration plots in his three valleys.

When the training period was over, Manuel went to live in Zacapoaxtla. It was in the center of the microregion, and he could go by jeep to the villages in his valleys each day. He persuaded five farmers he knew to help him set up small demonstration plots on their land. In exchange, the farmers would get everything harvested from the plots. The demonstration plots were on the outskirts of five different villages, and Manuel planned to spend one day a week in each village.

Manuel and the farmers laid out the five demonstration plots in the same way. Each plot had five rows of corn, and each row was labeled to identify how it was planted (see Figure 3).

- In the first row, Manuel and the farmers planted the corn just as the farmers usually did: at the usual planting time, and using the same seeds.
- In the second row, they used the same seeds, but they planted them two weeks earlier than usual.
- The third row was also planted two weeks early, but special seeds developed at the training center at Puebla were used.
- The fourth row was planted two weeks early, again using special seeds. But fertilizer was added.
- The fifth row was the same as the fourth, except that Manuel and the farmers twice sprayed insecticide on the growing stalks.

Figure 3. Plan of Manuel's Demonstration Plots


Regular seeds planted at the usual time
Row 1
Regular seeds planted early
Row 2
High-yielding seeds planted early
Row 3
High-yielding seeds planted early with fertilizer added
Row 4
High-yielding seeds planted early with fertilizer added—growing stalks sprayed with insecticide
Row 5

Manuel felt confident that the rows planted earlier than usual would produce more corn than the first row. He was confident, too, that the third row would produce more than the second, the fourth more than the third, and so on, with the fifth producing the most of all. If that happened, farmers would clearly see the advantages of planting earlier and of using special seeds, fertilizer, and insecticide.

Farmers who let Manuel set up demonstration plots on their land watched the progress with great interest. So did some farmers who lived nearby and came to the demonstration plots for training sessions each week. At those sessions, Manuel would explain why it was a good idea to plant early, how seeds differed, and what fertilizer and insecticide did to help the plants. The farmers asked many questions, and Manuel could answer most of them. But if he couldn't, he would try to get the answer from other members of the APRA team or from his instructors.

As the growing season advanced, Manuel and the farmers measured the differences between the plants in the first row and the other rows. They compared the height of the stalks and counted the number of cobs on each stalk. The farmers commented that there would probably be little difference between the five rows by

harvest time: stalks in one part of a field often grew more slowly than those in another part. Besides, the first row had been planted two weeks later than the other rows. Give it time, they said, and watch it catch up.

Their skepticism surprised Manuel, but he respected the farmers' reluctance to make any changes in farming practices. So he laughed with them, saying that maybe his plot wouldn't be different from their fields when harvest time came. After all, they had been farming their land for years, and he was a newcomer.

But as harvest time approached, everyone agreed that there were differences between the five rows of each demonstration plot. Manuel was disappointed that there was only a small difference between the first and second rows. He had hoped that planting earlier would help farmers grow much more corn without having to spend anything extra.

But the difference between the first two rows and the fifth was dramatic. Manuel harvested 50 percent more corn from the fifth row than from either of the first two. The farmers were impressed. But they laughed at him and said, "So you want us to use new seeds and fertilizer and insecticide. Where do we get the money?"

Manuel was prepared for this. During his months in the microregion, he had several conversations with the manager of BANRURAL, the National Bank for Rural Credit in Zacapoaxtla. He had described the demonstration plots and farmer-training sessions. He told the BANRURAL manager that if farmers followed his recommendations in using seed, fertilizer, and insecticide, they would produce more than enough corn on their land to repay loans. The BANRURAL manager told Manuel that he would consider making loans when the farmers applied for them.

Manuel explained to the farmers about the arrangements with BANRURAL in Zacapoaxtla. He then helped them prepare loan application forms and went with them on their first visit to the bank. He was pleased when the farmers later asked him to join them in a small gathering to celebrate the approval of the loans.

Word Gets Around

When the time came for the next planting, several dozen of the farmers Manuel had been working with were ready to try the new methods on part of their land. Some of them were the farmers who had let Manuel set up the demonstration plots on their land. But most of them were neighboring farmers who had attended the weekly training sessions. With Manuel's help, they had all been able to get loans and buy the seeds, fertilizer, and insecticide they needed.

During Manuel's second year in the microregion, he set up new demonstration plots on the same five farms. This time, he wanted to show farmers how they could increase

Having seen how new methods improved the odds for a good harvest, many farmers in Manuel's groups began to heed his advice.

their harvests of beans and potatoes, the other principal crops of the microregion. He met often with farmers in training sessions, to answer their questions and to provide additional advice. Manuel also branched out to five other villages, again persuading one farmer in each village to let him set up demonstration plots. He prepared the plots just as he had the year before, and he invited nearby farmers to attend weekly training sessions.

Manuel also organized groups of farmers to dig trenches that would prevent further erosion on steeper slopes.

In his third year Manuel organized farmers in groups to build terraces on badly eroded slopes. Terracing would prevent further erosion and eventually provide more land for farming. Some day Manuel hopes to show farmers how to grow coffee—which they could sell at the big market in Zacapoaxtla to raise their incomes even more.

Manuel and the other members of the team trained by AIPRA can work with only a small number of the 12,000 farmers in the Zacapoaxtla microregion. But word of

the new farming methods and bigger harvests is getting around, and the ripple effect is operating. More and more farmers are trying those methods and harvesting more corn, beans, and potatoes on their farms. As a result, the incomes of these farmers are rising. Table 1 shows how incomes have changed in one ejido in the Zacapoaxtla microregion since farmers began to use new farming methods and to grow avocados.

Table 1. The Difference Between the Old and the New in Ejido Alzalan

Crop	Average annual income per family	
	With old farming methods	With new farming methods
Corn	$220	$320
Beans	80	140
Potatoes	50	90
Subtotal	350	540
Fruit, mainly avocados	0	130
Total	$350	$680

The program of demonstration plots is only one of many activities that PIDER officials have started in the Zacapoaxtla microregion. Roads are being built to connect the communities of the microregion to the town of Zacapoaxtla, where some of the farmers' additional produce can be sold. Steep slopes are being terraced to prevent further erosion. Schools and health clinics are being built, and electricity is being brought to many villages.

The efforts of people from PIDER and the agencies it works with are clearly changing the lives of many people in the Zacapoaxtla microregion. People there have had to work hard for generations. But now, with a few important changes, their hard work is beginning to bring about some improvements in the way they live.

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Chapter Five

The Effect of PIDER

Poor farmers in Mexico have been trapped in a vicious circle of poverty for generations. Because they do not produce much, they must consume all or most of what they produce. That means they cannot sell much. Nor can they save much. Because they cannot save much, they do not have money to spend on things that could help them produce more. So they continue to produce very little. Breaking out of this vicious circle on their own is almost impossible.

The PIDER program pays for projects that enable poor farmers to produce more and to break out of the vicious circle of poverty. For this reason PIDER is called an *investment* program. (Spending money on things that enable people to produce more is called *investing*.) In 1981 PIDER invested $450,000,000 in its microregions. As the preceding chapters have shown, these investments take many forms.

Is PIDER succeeding? Are farmers producing more? Are they beginning to break out of the vicious circle of poverty? Are their living conditions improving?

If Pedro Vasquez's father were asked these questions, he probably would say that PIDER's projects are improving life for him and his family. If Manuel Ruiz were asked the same questions about the communities he works with in the Zacapoaxtla microregion, he probably would reply that many people are better off. He might add that many more people will be better off in the future. But what about the PIDER program as a whole? Is it succeeding in helping Mexico's campesinos?

In the late 1970s PIDER officials studied what had been done in thirty of PIDER's microregions. Here's what they found:

- 140 new irrigation systems were bringing water to more than 12,500 hectares of land.
- 160 new soil-and-water-conservation projects were helping to protect more than 30,000 hectares of land.
- 150 new livestock projects were improving the prospects for higher income of more than 13,000 families.
- 850 kilometers of new roads had been built to make it easier for farmers to get their goods to market towns.
- 275 kilometers of new lines were bringing in power to run lights and irrigation pumps.
- 50 new health centers were serving 18,000 families.
- 350 new classrooms were making it possible for more than 20,000 children to attend school.
- 80 new water systems were serving more than 20,000 families.

Village stores—started with help from PIDER and from CONASUPO, the National Marketing Agency—sell many essential products at about two-thirds the usual price.

With help from PIDER and the Department of Health, the people of many villages are building clinics that will bring health care closer to home.

In all, about 1,200 projects had been completed in the thirty microregions, benefiting almost 120,000 families. Farm production was increasing—and farm incomes were rising—in some of the long-neglected pockets of poverty in Mexico.

From the study of the thirty microregions, PIDER officials discovered some things that they are applying to their work in all microregions. They learned that many projects were taking longer than expected. So they began to design simpler projects that could be completed more quickly. And they decided that they would have to improve further their coordination of other government agencies. They also learned that most projects were more expensive than expected, partly because of inflation. The higher costs underlined the need

for simpler projects—and for better planning and for economizing wherever possible.

The study also showed that greater attention should be given to helping women in the microregions. For example, in villages where wells and electric pumps have been installed, women did not have to spend so much time getting water for their families. They were free for other kinds of work. For many years, the Department of Agriculture and Water Resources had

Home economists of the DAWR *show village women how to do many things that can add to a family's income and well-being—and that can free them from routines they have been bound to for centuries.*

run a small program to help rural women to do things that would increase their income. PIDER officials helped the DAWR strengthen and expand its program in PIDER microregions.

Young women trained in home economics now work with girls and women in most microregions. It is the custom in many parts of rural Mexico for women to tend small gardens near their houses. The DAWR workers are teaching women new ways of growing the vegetables they have grown for a long time. Using seeds

provided by the DAWR workers, women are also beginning to grow other vegetables that are rich in vitamins and minerals—carrots, cabbage, spinach, and tomatoes, for example. They are being shown how to prepare more nutritious meals. And women in some microregions are learning how to raise chickens. Not only are women producing more food for their families. They are also selling some of their produce in local markets, helping to increase family income.

Many schools are being built under the PIDER program—because primary education, particularly of girls, is one of the most important ingredients of economic development.

Problems will continue to arise as PIDER continues its work. Improving the living conditions of Mexico's poorest farmers is complex and expensive. It will take time—and a lot of money.

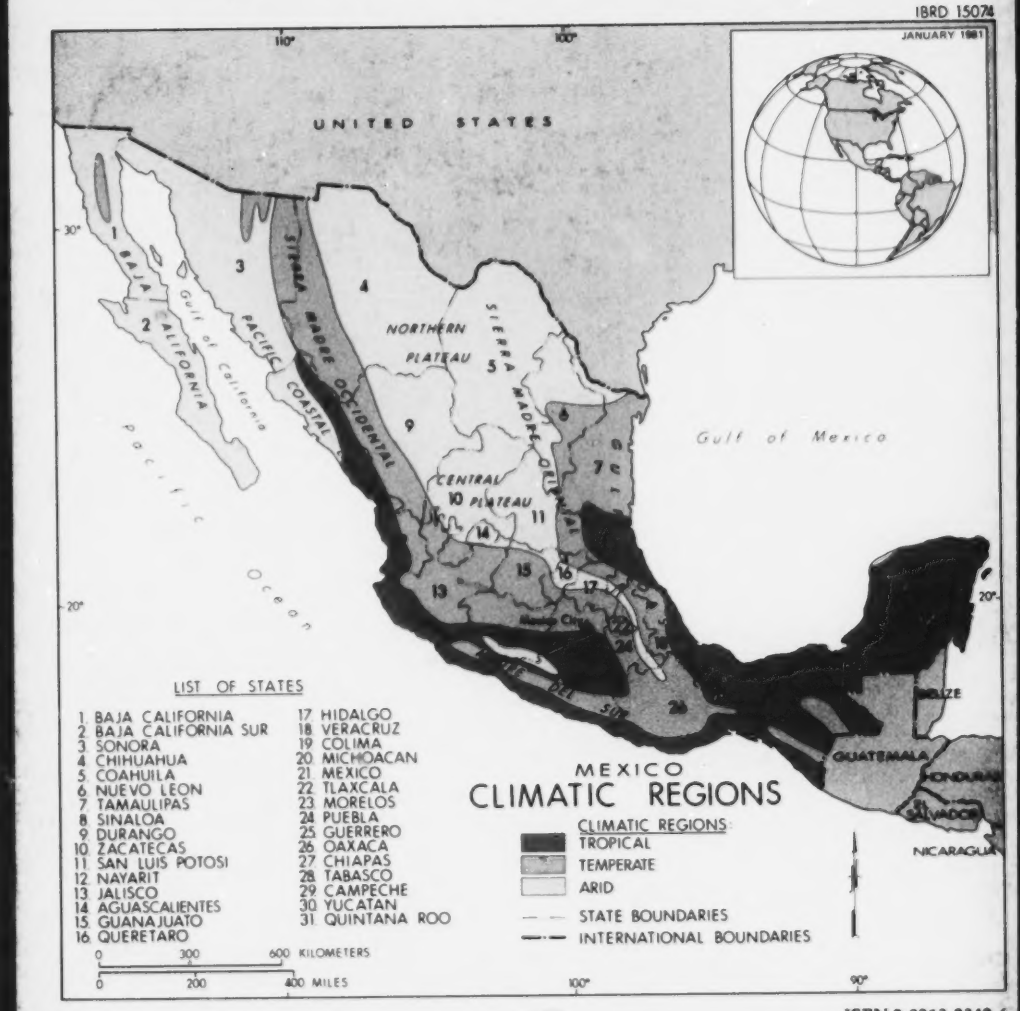
Although there still is much to be done, PIDER has made some important headway in changing the outlook of many people in its microregions. Pedro Vasquez, for example, has some new ideas about his future. He got the temporary job that he hoped for in improving the dirt road from San Jose del Rio out to the highway. The

work took him to Aguascalientes on a few occasions, and once he visited a village that he had never been to before. A store, set up there with PIDER's help, was selling sugar, salt, and many other items at prices lower than those charged by other stores.

"Maybe we could set up such a store in San Jose del Rio," Pedro thinks. "And maybe I could run it." To do that, though, he would need some more schooling. So he is thinking about joining a class for people his age at the school in Villa Juarez. He is also thinking about enrolling in a program that trains people to maintain and repair the pumps used for irrigation systems and village wells.

With such possibilities, Pedro seldom considers moving to Aguascalientes, or to Mexico City, or to the farms in western Mexico. "I think I'll stay in San Jose del Rio," he says. "Our family has always lived here. It has always been good enough for us. And life here is better than it was a few years ago."

The prospects of many young people in rural Mexico are brighter because of the PIDER program.



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Teaching Guide

Tackling Poverty in Rural Mexico

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TOWARD A BETTER WORLD

World Bank Educational Materials

T E A C H I N G G U I D E

to accompany

TACKLING POVERTY IN RURAL MEXICO

- A Case Study of Economic Development -

ECONOMIC SUMMARY: MEXICO

MANY STEPS, ONE GOAL

- A Sound Filmstrip -

TOWARD A BETTER WORLD is a multimedia kit of educational materials published by the World Bank. It was developed in cooperation with school systems in Washington, D.C. and its suburbs and was classroom tested in 1979 and 1980. The contents of the kit are listed on page 4 below.

The World Bank is an international organization owned by nearly 140 countries. Its work is to help poor countries in their efforts to improve the living conditions of their people. It does this by lending money to its poorer member countries for development projects. The International Development Association, which is part of the World Bank, makes long-term loans at low cost to the world's poorest countries. The World Bank began to operate in 1946; the International Development Association was founded in 1960. Their loans to developing countries now amount to about $12 billion a year.

This teaching guide was written by Harriet Baldwin with the assistance of individuals listed on page 6. It was edited by Bruce Ross-Larson. Statistics, maps, and figures were supplied by various departments of the World Bank. The denominations used and the boundaries shown on the maps do not imply, on the part of the World Bank and its affiliates, any judgment on the legal status of any territory or an endorsement or acceptance of such boundaries.

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FOREWORD

TOWARD A BETTER WORLD is multimedia kit of educational materials for secondary students developed by the World Bank. It deals with world poverty and the economic and social changes that must be made to relieve it. The kit includes the following items:

Materials about economic development

Student book: THE DEVELOPING WORLD
Sound filmstrip: SOME BIG QUESTIONS
Sound filmstrip: TOWARD A BETTER WORLD
TEACHING GUIDE

Case studies of economic development

1. Student pamphlet: ECONOMIC SUMMARY: INDIA
   Student book: THE RAJASTHAN CANAL PROJECT
   Sound filmstrip: WHAT HAPPENS WHEN A DESERT BLOOMS
   TEACHING GUIDE

2. Student pamphlet: ECONOMIC SUMMARY: KENYA
   Student book: SMALL-SCALE INDUSTRIES IN KENYA
   Sound filmstrip: SMALL-SCALE INDUSTRIES IN KENYA
   TEACHING GUIDE

3. Student pamphlet: ECONOMIC SUMMARY: MEXICO
   Student book: TACKLING POVERTY IN RURAL MEXICO
   Sound filmstrip: MANY STEPS, ONE GOAL
   TEACHING GUIDE

Rationale and point of view

Relieving world poverty is one of the pressing problems of our time. Three-quarters of the world's people live in countries that are poor. Nearly a billion people in poor countries are hungry, illiterate, in poor health, and without productive employment. Other hundreds of millions are only a little better off. Because the populations of the poor countries are increasing, each year millions more people must be fed, educated, and provided with houses, clothing, jobs, health services, and pure drinking water.

In the past thirty-five years, the poor countries have engaged in economic development to improve the living conditions of their people. They have done so mainly by using their own resources, although the rich countries have provided technical and financial assistance. As a result of these efforts, all poor countries have made some progress; a few have made dramatic gains. But widespread poverty remains and threatens to increase. It affects rich countries as well as poor in an increasingly interdependent world.

For more than thirty years, the World Bank, in cooperation with governments and other institutions, has been assisting the

world's poor countries in the process of economic development. TOWARD A BETTER WORLD draws on that experience. The purpose of the World Bank in publishing TOWARD A BETTER WORLD is to help young people better understand the need for and the process of economic development. Economic development is helping hundreds of millions of people to improve their physical and material well-being and better fulfill their potential as human beings. Hundreds of millions of others must be affected by it if humanity is to move toward a better world.

Goals

TOWARD A BETTER WORLD has two educational goals. The first goal is to increase students' knowledge -- of the nature and extent of world poverty, of the process of economic development, and of the growing interdependence of rich and poor countries that economic development is bringing about. The second goal is to encourage students to develop informed opinions -- about relieving world poverty, about economic development, and about global interdependence.

Approach

The approach of TOWARD A BETTER WORLD is to introduce students to the nature of life in the developing countries, to the process of economic development, and to the effects of economic development in the developing countries and in the world as a whole. Against this background, case studies of specific development projects are presented to illustrate economic development vividly and in detail. The case studies are of projects that have been partly financed by the World Bank and its affiliate, the International Development Association. Information is presented in statistical and descriptive form in books, pamphlets, and sound filmstrips. Lesson plans provide opportunities for students to enter imaginatively into the experiences of people in the world's poor countries, and to use the knowledge they acquire in their study to clarify their opinions.

Contributions to the social studies curriculum

TOWARD A BETTER WORLD makes three contributions to the secondary school social studies curriculum. First, it deals with two major concepts examined in social studies: change and interdependence. Second, it presents a number of economic concepts and terms that all citizens should understand. Third, it offers opportunities for strengthening skills in reading, writing, geography, and critical thinking, and in using statistical tables, graphs, and charts. The kit is designed as supplementary material, to be used in such courses as world geography, world history, world studies, global studies, and current issues. The entire kit can be used as a unit of six to nine weeks in these courses, or items in it can be selected for use in existing units.

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INTRODUCTION TO TACKLING POVERTY IN RURAL MEXICO

This Teaching Guide accompanies a pamphlet, book, and sound filmstrip which, together, present a case study of an integrated rural development project -- the PIDER program -- in Mexico. This case study is one of several included in the multimedia kit, TOWARD A BETTER WORLD. The case studies should follow an introduction to economic development in which students read the book, The Developing World, and view two filmstrips. The introductory study is outlined in the Teaching Guide: The Developing World, and materials for it are in the multimedia kit. When this study is finished, the case studies may be undertaken in any order.

The case studies can be used apart from The Developing World. When they are used in this way, teachers should be prepared to make some changes in the Lesson Plans included in the Teaching Guides that accompany the case studies.

Materials

The materials to be used with this Teaching Guide for the case study of the PIDER program are as follows:

Student pamphlet: Economic Summary: Mexico

Student book: Tackling Poverty in Rural Mexico

Sound filmstrip: Many Steps, One Goal

Worksheets (included in the Teaching Guide, beginning on page 53; those preceded by an asterisk are for highly motivated students):

	No. 1.	Finding Out About the Mexican Economy
	No. 2.	While You Read
*	No. 3.	Development Activities in Mexico
	No. 4.	Mexico and Neighboring Countries
	No. 5.	While You Read
	No. 6.	Why Is Coordination Necessary?
	No. 7.	After You Read
	No. 8.	Getting Ready for a Class Discussion
*	No. 9.	What Would You Do If...?
	No. 10.	A PIDER Project for a Village in the Sur de Yucatan Microregion
	No. 11.	Test
*	No. 12.	Some Additional Activities

The film, Seeds of Progress, produced by the World Bank (28 minutes, color, 1976), portrays the PIDER program in its early days. The film can be rented for $20 from the Audio Visual Division, the World Bank, 1818 H St., N.W., Washington, D.C. 20433.

Overview

Mexico is one of the most advanced developing countries. Its economy has grown rapidly since the Second World War, and the standards of living of millions of Mexicans have risen dramatically. But millions of others have been left behind. Many live in crowded slums, where they lack opportunities for work, education, and health care. Others live in isolated rural communities without electricity, transportation, or schools. They work hard on poor soil using farming methods that have been used for centuries, raising barely enough to feed themselves.

To help poor farm families increase their incomes and acquire basic services, the government of Mexico began a new program in the early 1970s. The program is called PIDER (pronounced Pea-dehr), an acronym for the Spanish words that mean Integrated Rural Development Program. PIDER officials work with rural communities and officials of many government agencies in planning and carrying out activities to improve living conditions in poor rural areas designated as "microregions." These activities include, among others, training farmers and building roads, schools, health centers, and irrigation systems. As a result of these activities, life is beginning to improve for six million Mexicans in 131 microregions throughout Mexico.

The PIDER program was selected as a case study because it is an example of integrated rural development. By dealing simultaneously with many aspects of rural life, such programs usually are effective in raising rural living standards.

Students will begin the case study by comparing living conditions in Mexico and the United States using the Economic Summary: Mexico. They will note Mexico's rich endowment of natural resources, the relatively advanced state of its economy, and the need for helping its rural poor.

Turning to the book Tackling Poverty in Rural Mexico, students will explore the features of the PIDER program, and learn how the program has operated in two microregions--one in the state of Aguascalientes and one in the state of Puebla. They will follow the steps needed to get activities under way and will see the changes these activities are bringing about. Then they will plan a PIDER project for a village in Yucatan. To review the case study, students will see the filmstrip, Many Steps, One Goal.

Objectives and Evaluation

The case study of the PIDER program can be used to meet many educational objectives. The Lesson Plans that follow are designed to help students achieve the general objectives listed below. The achievement of these objectives can be measured in a test given in Lesson 8 (Worksheet No. 11).

Objective 1. Students will identify some characteristics of the Mexican economy and list some activities in which Mexico engages to advance economic development.

Objective 2. Students will describe the living conditions of poor farmers in Mexico.

Objective 3. Students will illustrate the complexity of the PIDER program by:
- listing the responsibilities of officials participating in it
- describing PIDER microregions
- listing typical development activities in PIDER microregions.

Objective 4. Students will give examples of ways in which people's lives are changing as a result of the PIDER program.

Objective 5. Students will explain how the PIDER program contributes to economic development in Mexico.

Objective 6. Students will locate the following on a map of Mexico and neighboring countries:

Gulf of Mexico	Honduras
Gulf of California	Mexico
Pacific Ocean	United States
Belize	Aguascalientes
El Salvador	Puebla
Guatemala	Yucatan

LESSON PLANS

Introductory Notes for Teachers

- Lesson Plans are organized in eight lessons, one of which is a test. Most student groups should be able to complete one lesson in a single class period.

- The Lesson Plans are designed to follow the study of the book, The Developing World, from the multimedia kit, TOWARD A BETTER WORLD. Teachers will need to change a few activities in the Lesson Plans for students who have not read that book.

- Lesson objectives are derived from the general objectives of the study listed on page 9. Activities in which students may demonstrate the achievement of the lesson objectives are listed after each objective.

- Activities are numbered according to the lesson in which they occur and the sequence within the lesson.

    - Activity numbers followed by letters (i.e., 2.2.a. and 2.2.b.) indicate that the activities are alternatives. Teachers should choose only one of them.

    - Activity numbers preceded by asterisks indicate activities for highly motivated students.

    - Supplementary activities are included at the end of most lessons.

- Vocabulary that may be new to students is listed at the beginning of each lesson. Teachers should be sure that students understand the vocabulary before beginning the lesson, but activities to strengthen mastery of vocabulary are not included in the lesson plans.

- The pronunciation of Spanish words used in the lesson is given at the beginning of the lesson. Students should pronounce these words aloud three or four times so that they can say them easily. Pronunciations are also given on page 2 of the book, Tackling Poverty in Rural Mexico. Spanish-speaking students in the class will be able to help with pronunciations.

- Worksheets are at the end of the Teaching Guide. By cutting them along the line of dashes, teachers can remove them for duplicating without damaging the book. Teachers should read each worksheet carefully before using it to determine whether it is appropriate for their class.

- The test in Lesson 8 (Worksheet No. 11) measures students' achievement of the general objectives of the study listed on page 9.

- Concepts used in the study that may be new to teachers are explained in the following places:
  GNP and GNP per capita--Teaching Guide, p. 14
  economic growth, economic equity--Teaching Guide, p. 18
  integrated rural development--Tackling Poverty in Rural Mexico, p. 14.

  An ejido is a rural Mexican community that owns land issued to it in the decades after the revolution of 1910. The male heads of families are called ejidatarios, and each of them has the right to farm a part of the ejido's land. An ejidatario's eldest son inherits that right, but neither the land nor the right to farm it can be sold.

- A world map and/or a map of Central and South America should be displayed in the classroom throughout the study.

- Additional activities that will enrich the study:

  - a bulletin board display of pictures, and magazine and newspaper articles about Mexico.

  - talks by students or adults who have lived or traveled in Mexico.

  - listening to recordings of Mexican music.

Lesson 1 THE ECONOMY OF MEXICO (1)

Lesson objectives

As a result of this lesson, students should be able to:

1. Locate the following places on a map of the world and a map of Mexico and neighboring countries:

Gulf of California	Guatemala
Gulf of Mexico	Honduras
Pacific Ocean	Mexico
Belize	United States
El Salvador	

(Activity 1.2)

2. Compare the living conditions of a typical teenager in Mexico and the United States, making inferences from statistics. (Activity 1.3)

Materials

Economic Summary: Mexico
Worksheet No. 1. Finding Out About the Economy of Mexico
Worksheet No. 2. While You Read (for homework)

Vocabulary

bicameral legislature
equivalent
executive branch
gross national product (GNP)
GNP per capita
kilometer (1 km. = .62 miles; 1 sq. km. = .625 sq. miles)
kilogram (1 kg. = 2.2 lbs.)
social or economic indicator

Pronunciation

Aztec	As-tek
Belize	Buh-leez
Guatemala	Gwa-tuh-mah-luh
Maya	My-uh
Nicaragua	Neek-uh-rahg-wa
Olmec	Ohl-meck

Lesson 1 THE ECONOMY OF MEXICO (1)

Activities

1.1. Introduce the study. Explain to students that they are going to learn about a specific development project now underway in Mexico. The case study will help them understand economic development in greater detail. They will begin by learning about the Mexican economy.

Distribute Worksheet No. 1. Read the instructions at the top of page 1; then have students complete the worksheet quickly. Have them put it aside when they are finished.

1.2. Distribute the pamphlet, Economic Summary: Mexico. Have students look at the map on the back cover. Ask the following questions:

- What countries have borders with Mexico?
- What other countries are shown on the map?
- What bodies of water border Mexico?
- What is the capital of Mexico? Point to it on the map.
- How many states are there in Mexico? (Have students count them: there are 31.) Explain that Mexico City is in a federal district that is not counted as a state. Ask them what other country they know of in which the capital city is in a federal district.
- What are the advantages to Mexico--and the disadvantages--of having a border with the U.S.?

Have students locate on a map of the world or of Central and South America the places listed in Lesson Objective 1.

1.3. Have students look at the statistical table on the cover of the Economic Summary: Mexico. Some statistics in the table may appear to students to be out-of-date. Explain that those in the table were the most recent and reliable ones available at the time the table was prepared. Ask students to find on the pamphlet the year it was prepared (the copyright is on the back cover).

Ask students to refer to the statistics in the table to answer the following questions:

- How big is Mexico in area in comparison with the U.S?

- How big is Mexico's population in comparison with that of the U.S.?
- How many more people will live in Mexico in 2000 than live there today?
- What proportion of people in Mexico live in urban areas? Where does a "typical" Mexican live?

When students understand how to answer the last question from data in the table, have them work in teams to revise and complete Worksheet No. 1. For questions 5-17, they are to write correct answers and the statistics that provide the answers in the right hand columns.

Explain to students--or remind them of--the meaning of the terms GNP and GNP per capita.
(GNP--gross national product--is the value of all the goods and services a country produces in a year. It includes food and clothing, roads and buildings, military equipment and government salaries, and exports. GNP per capita is the part of a country's GNP each person in the country would have if the GNP were divided equally among them.)

With students who are not familiar with these terms, calculate Mexico's GNP per capita on the chalkboard:

$$\frac{\$84,400,000,000}{65,400,000} = \$1,290$$

Have students calculate the GNP per capita of the following countries:

	GNP	Population	GNP per capita
Honduras	$1,632,000,000	3,400,000	($480)
India	$115,900,000,000	643,900,000	($180)
Costa Rica	$3,234,000,000	2,100,000	($1,540)

1.4. Read aloud with students the first three paragraphs on page 2 of the Economic Summary: Mexico. Ask students to name some ways in which Mexican history and American history are alike, and some ways in which they are different.

Lesson 1 THE ECONOMY OF MEXICO (1)

1.5. Homework.

1. Read Economic Summary: Mexico, pages 2-7

2. Complete Worksheet No. 2.

Supplementary activity

1.6. Have students write a paper beginning with the following sentence:

> "Rosa sighed as she tried to explain to her new American friend, Jim, how different her life in Mexico was from his."

Papers must make use of the knowledge students have acquired in their study of the statistical table in the Economic Summary: Mexico.

(A good paper would describe urban and rural living conditions, occupational outlook, educational opportunity, health care, energy consumption, school enrollment.)

Note: During Lesson 1 and Lesson 2, students may ask why the government of Mexico has been able to operate population education and family planning programs when Mexicans are predominantly Catholic. Explain that church and state were separated in the Mexican constitution of 1910, and that the church has not raised strong objections to these programs in recent years.

Lesson 2 THE ECONOMY OF MEXICO (2)

Lesson objectives

As a result of this lesson, students should be able to:

1. List some characteristics of the Mexican economy that make Mexico appear to be a rich country, and some that make it appear to be a poor country. (Activity 2.3.a or 2.3.b)

2. Identify specific development activities in Mexico that contribute to economic growth, economic equity, or both. (Activity 2.4.a or 2.4.b)

3. Summarize the economic problems Mexico faces, and state some activities in which Mexico is engaging to deal with them. (Activity 2.5)

Materials

Economic Summary: Mexico.
Worksheet No. 2. While You Read (cont'd.)
Worksheet No. 3. Development Activities in Mexico
Worksheet No. 4. Mexico and Neighboring Countries (for homework)

Vocabulary

affluent
commercial
consumer goods
decisive
economic development
fertilizer
goods and services
small-scale
plateaus
prospered
revenue
semiarid
traditional

Lesson 2 THE ECONOMY OF MEXICO (2)

Activities

2.1. Briefly go over Worksheet No. 2 that students did for homework; collect the worksheets.

2.2. Have students refer to the chart on page 7 of the Economic Summary: Mexico. Ask the following questions:

- What information does the chart provide?
- What problems does Mexico face because of the conditions shown in the chart?
- What steps is the government of Mexico taking to deal with these problems? (Creating urban jobs, proving urban schools, health care, clean water, sewers, and public transportation.)

Either 2.3.a. Lead a class discussion of the following questions:

- What characteristics does Mexico have which make it appear to be a rich country?

- What characteristics does it have which make it appear to be a poor country?

The chart below might be developed on the chalkboard during the discussion:

Rich country characteristics	Poor country characteristics
good agricultural land	many poor farmers
many mineral resources	rapidly growing population
modern farms	low school enrollment
modern factories	high infant death rate
a growing economy	low life expectancy
many exports and imports	urban slums
loans from commercial banks	small number of doctors
growing urban population	low calorie intake

Or 2.3.b. (For students who have read The Developing World)

Ask students to recall the characteristics of developing countries mentioned in Chapter One of The Developing World. Write each characteristic on the chalkboard as students recall it. (cont'd page 18)

(cont'd. from page 17)
Students should be able to recall the following:

- Poverty is widespread.
- Most families make a living in agriculture.
- Capital is scarce.
- Imports are limited.
- Population is growing rapidly.

As students recall each characteristic, ask, "Does Mexico seem to you to have that characteristic?" Have students refer to the information they have acquired in their reading to answer this question.

Lead a discussing of the following questions:

- Is Mexico a low-income developing country, or a middle-income developing country?
  (Low-income developing countries have per capita incomes of less than $500; middle-income countries have per capita incomes of more than $500.)

- Help students to recall the GNP per capita of some low-income developing countries. (India, $180; China, $230; Kenya, $330.)

- What characteristics besides its GNP per capita make Mexico a middle-income developing country?
  (Relatively low proportion of workers in agriculture, many exports and imports, a relatively high adult literacy rate.)

- Why might commercial banks in the developed countries be willing to assist with economic development in Mexico?
  (Many investment opportunities: Mexico is a good risk.)

Either 2.4.a. Ask students to recall the terms economic growth (producing more goods and services) and economic equity (distributing them more fairly). Ask the question, "Does Mexico seem to you to be trying to achieve economic growth, or economic equity, or both?"

To clarify these concepts, list the three development activities below in which Mexico engages:

- proving vocational training for young adults in urban slums;
- training field-workers to teach farmers new farming methods;
- producing more oil and natural gas.

Lesson 2 THE ECONOMY OF MEXICO (2)

Ask students whether each activity contributes primarily to economic growth, or primarily to economic equity. Then ask students how each activity contributes to both growth and equity. The points in the chart below might be brought out in the discussion.

Development activities	Contribution to economic growth	Contribution to economic equity
1. Providing vocational training for young adults in urban slums (primarily equity)	Trained people produce more goods and services	Opportunities of poor people are increased
2. Training field-workers to teach farmers new farming methods (primarily equity)	Production of food and other products increases.	Incomes of poor people increase.
3. Producing more oil and natural gas (primarily growth)	More is available for use in Mexico and for export.	Jobs are created; money is provided for activities that help poor people.

Students may find it interesting to discuss which they think is more important--growth or equity; such a discussion should help them to see that both are important.

*Or 2.4.b. Ask students to recall the terms economic growth (producing more goods and services) and economic equity (distributing them more fairly). Lead a discussion of the following questions:

- Do you think Mexico wants to improve economic equity? Why? What evidence can you cite? (Because millions of Mexicans are well-off and others want a fairer share; activities to assist the poor.)

- What condition in Mexico makes it difficult to improve economic equity? (Rapidly growing population.)

Distribute Worksheet No. 3. Have students complete it independently. Then organize them into small groups: the groups are to try to agree on the ordering of the activities. Have the groups report to each other, and have the class try to agree on the ordering of the activities.

Lesson 2 THE ECONOMY OF MEXICO (2)

2.5. To summarize what they have learned about the Mexican economy, have students refer to the pictures and the chart in the Economic Summary: Mexico. Lead a discussion of the following questions:

- What characteristics of the Mexican economy do the illustrations show?
  (Large-scale modern farming; large-scale construction; many poor farmers; rapidly growing population and increasing urban concentration.)

- What important characteristics of the Mexican economy are not illustrated?
  (Modern industry, oil and natural gas production, urban poverty, foreign trade.)

- What are Mexico's major economic problems?
  (Widerspread poverty, rapidly growing population, increasingly crowded cities.)

- What sets of activities is Mexico engaging in to deal with these problems?
  (Strengthening industry and agriculture, assisting the poorest people reducing population growth.)

2.6. Homework. Using the map on the back of the Economic Summary: Mexico for reference, complete Worksheet No. 4. Tell students they will be responsible for knowing the locations of the places on the worksheet when they take the test at the end of the study.

Supplementary activity

2.7. Have students who did activity 1.6 add to their papers. (Additional items would be changes in the economy, the effect of oil and gas production, urban crowding, the contrast between "the two Mexicos.")

Lesson 3 THE SETTING

Lesson objectives

As a result of this lesson, students should be able to:

1. Describe the daily life of a teenager in a poor Mexican farm family. (Activity 3.2)

2. Describe the living conditions of poor Mexican farm families since the 1500s. (Activity 3.3.a or 3.3.b)

Materials

Tackling Poverty in Rural Mexico. Pages 1-9
Worksheet No. 5. While You Read (for homework)

Vocabulary

aftermath
descended
eke out
fiestas
meager
prospects

Pronunciation

Aguascalientes	Ah-ghahs-kahl-yen-tess
Baja California	Bah-hah California
campesinos	kahm-peh-see-nohs
ejido	eh-hee-doh
mestizo	mess-tee-zoh
Pedro Vasquez	Peh-droh Vas-kez
San Jose del Rio	Sahn Ho-seh dell Ree-oh
Sierra Madre del Sur	See-air-uh Mah-dray del Soor
Sierra Madre Occidental	See-air-uh Mah-dray Ox-see-den-tahl
Sierra Madre Oriental	See-air-uh Mah-dray Or-ee-en-tahl
Villa Juarez	Vee-yah Hwar-ez
Zacapoaxtla	Zah-kah-pwahks-tlah

Lesson 3 THE SETTING

Activities

3.1. Collect Worksheet No. 4 that students did for homework. Have them locate the places listed on the worksheet on a wall map of the world or of Central and South America.

3.2. Explain to students that they will begin the case study of a development project in Mexico in this lesson. Introduce the book, Tackling Poverty in Rural Mexico. Ask students to guess what is happening in the photograph on the cover (men are digging a well) and how this activity might help to relieve rural poverty.

Have students look at the map on the back cover.

- Have students point to the topographic features on the map: 3 mountain ranges, 2 coastal plains, the plateau, and 2 peninsulas. Pronounce the names of these features aloud (see "Pronunciation" at the beginning of this lesson, page 21).

- Ask students to explain the meaning of the three shades of red on the map. Ask the following questions:
  - What must farmers do in large areas of Mexico to farm successfully? (Irrigate)
  - Why might a map showing rainfall have been chosen for this book? (Because it is so important in rural life.)

- Have students point to the states of Aguascalientes and Puebla and describe the topography and climate of each state.

Have students read aloud all the names and places listed in the "Pronunciation Guide" on page 2.

Have students look briefly at the "Contents" on page 3. Note the terms campesinos, PIDER, Aguascalientes, and Zacapoaxtla. Explain that Zacapoaxtla is in the state of Puebla.

3.3. Begin reading the book. Discuss the pictures on page 4. Have students take turns reading aloud pages 5-7 (top). Lead a discussion of the following questions:

- What are the conditions Pedro wants to escape from?
- What places does he want to go to?
- Why doesn't he go to one of them?

- What fears might he have about leaving?
- In what ways that Pedro might know about is Mexico advancing?

If students suggest that Pedro might migrate to the United States, explain that it is difficult to do so and costs much more than most poor Mexicans can afford.

Lead a discussion of the question, What do you think life is like for girls in San Jose del Rio?"

Either 3.3.a. In classes that need encouragement in reading, read pages 7-9 aloud, or have students take turns reading them. Discuss the following questions during the reading:

- What is a mestizo?
- What is a campesino?
- What was life like for campesinos while Mexico was a colony of Spain?
- What was done for the campesinos after the revolution of 1910?
- What is an ejido?
- How did farm production in Mexico change between 1910 and 1970? How did the change affect the campesinos?

Or 3.3.b. In classes that read well independently, have students read pages 7-9 silently. When they have finished, ask them to summarize briefly the life of poor Mexican farmers during the following period:

- 1521 to 1821
- 1821 to 1910
- 1910 to 1970.

Remind students of the statement in the Economic Summary: Mexico that "there really are two Mexicos." Ask them to illustrate the statement from what they now know about rural Mexico.

3.4. Lead a discussion of the following questions:

- What two problems that Mexico faces might be helped by relieving rural poverty? (Rural poverty itself; urban migration might slow down is rural life improved.)

- What would you do to tackle poverty in rural Mexico?

Lesson 3 THE SETTING

Note: There are two plans for Lesson 4. Plan One is for classes that need encouragement in reading; it should be preceded by homework 3.5.a. Plan Two is for classes that read well independently; it should be preceded by homework 3.5.b.

Either 3.5.a. Homework. (Plan One) Read Tackling Poverty in Rural Mexico, pages 10-19.

Or 3.5.b. Homework. (Plan Two)

1. Read Tackling Poverty in Rural Mexico, pages 10-19
2. Complete Worksheet No. 5.

Supplementary activities

3.6. Have students do research about one or more of the following:

the Olmecs	Maximilian
the Maya	Santa Anna
the Aztecs	Juarez
Montezuma	Zapata
Cortez	Pancho Villa
	Porfirio Diaz

* 3.7. Organize the class into small groups. Explain that each group is the platform committee of a political party in Mexico that wants to improve rural life and win rural votes. Each group is to write three or four planks for the party's platform.

When the groups have completed their platforms, have them report to each other.

Lesson 4 DOING SOMETHING FOR THE CAMPESINOS

Lesson objectives

As a result of this lesson, students should be able to:

1. Explain why it was necessary for the Mexican government to start a new program to assist poor farmers in the early 1970s. Activity 4(1).2. or 4(2).1)

2. Describe how the PIDER program operates, referring to:
   - specific government agencies
   - PIDER microregions
   - the need for coordination (Activity 4(1).2. or 4(2).1)

Materials

Tackling Poverty in Rural Mexico. Pages 10-19.
Worksheet No. 6. Why Is Coordination Necessary?
Worksheet No. 7. After You Read (for homework)

Vocabulary

agency
avocados
conserve
coordinator
deficient
fertilizer
field-worker
insecticide
integrated
livestock
loans
microregion
plant varieties
saplings
sequence
soil conditions

Pronunciation

BANRURAL	Bahn-roo-rahl
Chihuahua	Chee-wah-wah
CONAFRUT	Koh-na-froot
PIDER	Pea-dehr

Lesson 4 DOING SOMETHING FOR THE CAMPESINOS

Note: There are two plans for Lesson 4. Plan One is on this page; Plan Two begins on page 27. In Plan Two, the entire class period will be used for a role-play.

Activities (Plan One)

4(1).1. Distribute Worksheet No. 5 and have students do it in teams.

4(1).2. When the worksheets are complete, go over them with students or collect them and lead a discussion of the following questions:

- Why did poor Mexican farmers feel they were being left behind in the early 1970s? (Government assistance was leading to increased production on many farms; poor farmers were not receiving assistance.)

- If PIDER is like the hub of a wheel, what are the spokes of the wheel?
(Government agencies that work with PIDER)

- What is it like to live in a PIDER microregion?
(Many poor people; low agricultural output; few basic services.)

- List some activities that make PIDER an "integrated rural development project."
(Farmer-training, road-building, installing electricity.)

- In the long run, who will pay the cost of the PIDER program?
(The government of Mexico)

4(1).3. Homework. (See 4(2).4. on page 28.)

Lesson 4 DOING SOMETHING FOR CAMPESINOS

Activities (Plan Two)

4(2).1. Collect Worksheet No. 5 that students did for homework; it will be reviewed as the role-play is introduced.

4(2).1. Organize the class into 5 groups. Explain that each group represents a government agency that works with the PIDER program. Ask the following questions:

- What is the purpose of the PIDER program?
- What conditions in Mexico made it necessary to set up the PIDER program?
    - How did agricultural production change in the 1950s and 1960s?
    - How did this change affect poor farmers?
- Why is PIDER like the hub of a wheel?
- What are PIDER micreregions? How many are there? How much of Mexico do they occupy?
- What makes the PIDER program "an integrated rural development progrsm?"
- List some of the activities PIDER coordinates and pays for.
- Who is paying for the PIDER program?

Distribute Worksheet No. 6. Assign an agency to each group of students. Read the information about all the agencies aloud. Have students complete the section of the worksheet entitled "Time and Place."

Read aloud the section of the worksheet entitled "The PIDER Plan." Ask students, "Who participated in working out the PIDER plan for San Pablo?"

Read aloud the section of the worksheet entitled "Your Task." Have students look at the Planning Sheet.

Have students work in groups to plan their agency's activities and schedules for 10-15 minutes.

4(2).2. Assign one person in each group to act as spokesperson to report on the group's work to the class. Ask the spokesperson for each group to describe the group's plan and schedule. The groups will find that their schedules conflict. Continue the discussion until students recognize the need for coordinating the work of all agencies.

Lesson 4 DOING SOMETHING FOR THE CAMPESINOS

4(2).3. Lead a class discussion to develop a schedule for the work of the five agencies in San Pablo. The schedule below is illustrative. Students may wish to use extra copies of page 3 of Worksheet No. 6 during the discussion.

		BANRURAL Makes loans to farmers	CONAFRUT Helps with fruit growing	DAVR Trains farmers, builds irrigation systems	FEC Plans, installs electric power	FPSC Plans, builds schools
1974	January - March			Begin training farmers (corn and beans)		
	April - June	Make loans for seeds and fertilizer		↓		
	July - September				Begin installing electricity	
	October - December				↓	
1975	January - March			Begin building irrigation system		
	April - June		Plan orchard	↓		
	July - September	Make loans for orange trees	Plant orchard	Begin training farmers (oranges)		
	October - December			↓		Begin building school
1976	January - March					↓
	April - June					

4(2).4. Homework. Explain to students that they will read for homework about a PIDER project in the community where Pedro Vasquez lives. The community is an ejido, and the farmers in the ejido are called ejidatarios. Have students pronounce these terms aloud until they can say them easily (see "Pronunciation" at the beginning of Lesson 5, page 29).

1. Read Tackling Poverty in Rural Mexico. Pages 20-31.

2. Complete Worksheet No. 7 after reading the chapter.

Note: A role-play based on the reading done for homework will be done in class the next day. The role-play can be done in about 15 minutes by a group of five volunteers, or by the class as a whole in an entire period. The plans for Lesson 5 are for the shorter role-play, and the homework assignment includes the following assignment for five volunteers. Teachers who choose to do the longer role-play will find it described as Supplementary Activity 5.6.

3. Ask five students to valunteer to do a role-play in the next class of the following situation.

   People in the village of El Paso, 25 kilometers from San Jose del Rio, do not want a PIDER project because they are deeply suspicious of government officials and fearful of change. The PIDER co-ordinator thinks that they may change their minds if they meet people from San Jose del Rio and hear about the PIDER projects there. So he has arranged for a meeting of two people from each village. The time of the meeting is two years after the start of the PIDER project in San Jose del Rio.

   One person is to play the role of the PIDER co-ordinator, two are to represent people from San Jose del Rio, and two are to represent people from El Paso. Feelings and ideas expressed in the role-play should reflect careful reading of Chapter Three.

Lesson 5 GETTING WATER IN AGUASCALIENTES

Lesson objectives

As a result of this lesson, students should be able to:

1. Describe the PIDER project in Aguascalientes, referring to the decisions made by the ejidatarios and the government agencies that worked with them. (Activity 5.2)

2. State specific ways in which the lives of people in San Jose del Rio are changing as a result of the project. (Activity 5.3)

Materials

Tackling Poverty in Rural Mexico. Pages 20-31
Worksheet No. 7. After You Read (cont'd.)
Worksheet No. 8. Getting Ready for a Class Discussion (for homework)
* Worksheet No. 9. What Would You Do If...? (for homework)

Vocabulary

chilies
generators
hectare (1 hectare = 2.5 acres)
surveying

Pronunciation

Aguascalientes	Ah-gwahs-kahl-yen-tess
ejido	eh-hee-doh
ejitatario	eh-hee-dah-tar-yoh
El Llano	Ell yah-no
Puebla	Pweh-blah
Zacapoaxtla	Zah-kah-pwahks-tlah

Lesson 5 GETTING WATER IN AGUASCALIENTES

Activities (See Note in Activity 4(2).4, page 28.)

5.1. Have students locate the state of Aguascalientes on the map on the back cover of their books. Have them describe the climate and topography of the state. Have them locate Aguascalientes on a wall map of Central and South America.

Have them locate the El Llano microregion on the map of PIDER microregions on pages 14-15 in their book.

5.2. Ask students to recall what living conditions are like in all PIDER microregions. (People are very poor: there are few roads, often no electricity, schools, or health clinics.)

Have students refer to Worksheet No. 7 which they did for homework, and lead a brief discussion of it. In discussing item 2, have students name the agencies that cooperated in the project (DAWR, BANRURAL, CONAFRUT) and have them describe each briefly.

In discussing item 3, refer to decision e. or h., and ask, "What opinions would the ejidatarios have expressed in making the decision?" (Discuss all the decisions if there is time to do so.)

In discussing item 4, be sure students include the fact that the ejido is saving money for a new improvement. Explain that spending money on something that enables people to produce more is called investing.

Ask the question, "Why do you think the ejidatarios had to pay 1/3 of the cost of the project?" (They would have a greater sense of responsibility for it; they would learn the value of investing their money; PIDER's funds are limited.)

5.3. Have students who volunteered at the end of the preceding lesson present their role-play. When the role-play is finished, lead a discussion of the following questions:

- What feelings or ideas, in addition to those in the role-play, might be expressed at the meeting?
- Do you think the PIDER project is making relationships in San Jose del Rio more harmonious or less?

5.4. Explain to students that Chapter Four in Tackling Poverty in Rural Mexico describes a project in another PIDER microregion. The project is in the state of Puebla. Have students locate Puebla on the map on the back cover of their books. Ask them to compare the topography and climate of Puebla with those of Aguascalientes

Have students locate Puebla on the map of PIDER microregions on pages 14-15 of their books. Point out the Zacapoaxtla microregion: it is the easternmost microregion in the northern part of Puebla.

Have students pronounce Zacapoaxtla until they can say it easily (see "Pronunciation" on page 30 above or the "Pronunciation Guide" on page 2 of students' books).

Read page 33 aloud with the class. Ask the following questions:

- What are the living conditions in the Zacapoaxtla micreregion?
- Why are poor farmers reluctant to change their methods of farming?
- How would you feel if you were a poor farmer and a government official came to your farm and gave you advice about your work?
- How would you feel if you were a government official and it was your job to advise farmers about their work?
- What would you do to persuade farmers in the Zacapoaxtla microregion to change their farming methods?

5.5 Homework. Teachers must choose between Worksheet No. 8 and Worksheet No. 9 which is for a class of highly motivated students.

1. Read Tackling Poverty in Rural Mexico. Pages 32-41.

2. Complete Worksheet No. 8 or *Worksheet No. 9.

Supplementary activity

5.6. This class role-play, a variant of Activity 5.3, will take the equivalent of a class period. It should begin after Activities 5.1 and 5.2 are completed, continue to the end of the period, and be resumed the following day. It should be terminated 15 minutes before the end of the second period to allow time for Activity 5.4.

Lesson 5 GETTING WATER IN AGUASCALIENTES

1. Read the following description of the situation with which the role-play deals.

> People in the village of El Paso, 25 kilometers from San Jose del Rio, do not want a PIDER project because they are deeply suspicious of government officials and fearful of change. The PIDER coordinator of the El Llano microregion thinks that they may change their minds if they meet people from San Jose del Rio and representatives of the government agencies who have worked with them. So he has arranged for a meeting of these groups in El Paso. The class is to role-play that meeting.

2. Appoint one member of the class to be the PIDER coordinator and another to be the recorder for the meeting.

3. Organize the rest of the class in three groups:

   - Ejidatarios and their wives from San Jose del Rio;
   - Villagers of El Paso;
   - Representatives of the DWAR, CONAFRUT, BANRURAL, and FED (Federal Electricity Commission).

   Have the groups meet for about 10 minutes to discuss the feeling and ideas they will express at the meeting.

4. Convene the meeting. During the discussion, have the recorder list the arguments expressed for a PIDER project, and the arguments against one. (More income, more food, learning new skills, vs. risk, working with government officials, many disagreements.) Allow the discussion to continue for about 20 minutes.

5. Discuss the role-play. Have the recorder write the arguments for and against a PIDER project on the chalkboard, and have students add to the list. Ask the following questions:
   - Do the people of El Paso want a PIDER project?
   - What arguments were the most important in changing their minds, or keeping them from changing their minds?
   - Do the advantages of a project outweigh the disadvantages?
   - What ideas expressed at the meeting might help the PIDER coordinator to do a better job?

Lesson 6 DEMONSTRATION PLOTS IN ZACAPOAXTLA

Lesson objectives

As a result of this lesson, students should be able to:

1. Explain why demonstration plots are used to persuade poor Mexican farmers to use new farming methods. (Activity 6.1.a. or 6.1.b)

2. Explain why Manuel's demonstration plots succeeded in persuading farmers to use new farming methods. (Activity 6.1.a. or 6.1.b)

3. Express an opinion about the effect of the PIDER program on people in PIDER microregions and in the rest of Mexico, using specific information to support it. (Activity 6.3)

Materials

Tackling Poverty in Rural Mexico. Pages 23-48
Worksheet No. 8. Getting Ready for a Class Discussion (cont'd.)
* Worksheet No. 9. What Would You Do If...? (cont'd.)
Worksheet No. 10. A PIDER Program or a Village in the Sur de Yucatan Microregion (for homework)

Vocabulary

channeling
livestock
reluctant
terraces
terrain
vicious cir le

Pronunciation

Puebla	Pweh-blah
Manual Ruiz	Mahn-well Roo-eez
Zacapoaxtla	Zah-kah-pwahks-tlah

Lesson 6 DEMONSTRATION PLOTS IN ZACAPOAXTLA

Activities

Either 6.1.a. (For classes that used Worksheet No. 8 for homework). Lead a discussion of the worksheet as students refer to their notes. Students should make some of the following points in the discussion:

1. Manuel would know that agriculture is important in the Mexican economy and that it would provide a good living for him; perhaps he prefers working in the countryside to working in a factory or office in a city; he might want to help poor people.

2. Treat them with respect; be interested in what they know; learn from them.

3. The branch manager would assume that farmers could not repay loans. Manuel had to tell him that farmers using new methods would produce more, would sell some of their crop, and would earn enough to repay their loans.

4. Farmers canot afford to take risks; they need to see that new farming methods will be successful.

5. Train more field-workers; have each work with more farmers; have farmers train each other; train children in school.

6. He was well-qualified and well-trained; he got to know farmers well; he tried to understand their point of view; he showed them what to do in demonstration plots, rather than just telling them what to do.

* Or 6.1.b. (For classes that used Worksheet No. 9 for homework) Organize the class into groups. Appoint a spokesperson for each group. Have the groups discuss together how they would respond to the visitors' training program, and agree about what they would say. Have the spokespersons present their groups' positions to the class. Have the class discuss each position.

Ask students to list some general characteristics of a good program to train farmers. Students should be able to make some of the following points:

- Field-workers should be well qualified, should receive good pay, and should have enough training.

- Field-workers should work with the same group of farmers over a long period.

- Field-workers should understand the outlook of farmers.

- Field-workers should do more than just talk: they should use demonstration plots.

Either 6.2.a. In classes that need encouragement in reading, read Tackling Poverty in Rural Mexico, pages 43-46, aloud to them, or have them take turns reading it aloud. Lead a discussion of the following questions during the reading:

- Why is PIDER called "an investment program"?

- What accomplishments of PIDER were identified in the study of 30 microregions in the late 1970s?

- What problems did the study uncover?

- Describe the DAWR's program for rural women in PIDER microregions.

- Why do you think Pedro Vasquez changed his mind about leaving San Jose del Rio?

Or 6.2.b. In classes that read well independently, have students read Tackling Poverty in Rural Mexico, pages 43-46. Lead a discussion of the following questions when the reading is completed:

- Why is PIDER called "an investment program"?

- How is PIDER helping Mexico's poor farmers to break out of the vicious circle of poverty?

- What problems have arisen in the PIDER program, and how are they being solved?
(Some projects took too long and were too expensive, so simpler projects are being developed; more coordination was needed; women were being neglected, so a program for women was begun.)

- Why do you think Pedro Vasquez changed his mind about leaving San Jose del Rio?

Lesson 6 DEMONSTRATION PLOTS IN ZACAPOAXTLA

6.3. Ask students to express their opinions about the PIDER program. Use the following questions:

- In what specific ways is PIDER changing the lives of microregion families?
  (They have more food and income, easier access to markets, more schools, health centers, pure water, and electricity; some have new jobs and many are hopeful.)

- Recall the goals of Mexico's development plan for 1980-82.
  (From the Economic Summary: Mexico--to strengthen agriculture and industry; assist Mexico's poorest people; reduce population growth.

- In what specific ways is PIDER helping Mexico achieve these goals?
  (More agricultural production; incomes of rural poor are rising; they are receiving more education and better health care; some are remaining in villages rather than moving to cities.)

- Direct student's attention to the caption on page 47 and ask, "Why do you think the education of girls is 'one of the most important ingredients of economic development'?"
  (Education develops knowledge and skills that enable women to produce more food and other things; by producing more, they add to family income; they and their families benefit from good nutrition and better health care.)

- Do you think the PIDER program is paying enough attention to girls and women? What more could it do? What reactions do you think men might have to the women's program?

- Is PIDER a success or a failure when the following facts are taken into account?
  - About 12,000,000 people live in extreme poverty in rural Mexico;
  - 6,500,000 people live in PIDER's 131 microregions;
  - the government of Mexico spends $450,000,000 each year on PIDER;
  - PIDER projects take a long time to plan and carry out.

Lesson 6 DEMONSTRATION PLOTS IN ZACAPOAXTLA

6.4. Homework. Distribute Worksheet No. 10. Explain to students that they are to develop a PIDER program for a village in the state of Yucatan. Their plans are to reflect the point of view of a government official or a campesino. Divide the class into two groups, one representing government officials and the other representing campesinos. Explain that the two groups will compare their plans in the next class.

Have students pronounce the following place names until then can say them easily:

Alfonso Caso	Al-fon-so Cah-so
Sur de Yucatan	Soor duh You-kuh-tahn
Yucatan	You-kuh-tahn

1. Complete Worksheet No. 10.

2. Be able to locate the places named in the worksheet on maps in their books and on a wall map.

Supplementary activity

6.5. Do one of the following writing activities.

a. You are a woman living in a village in a micro-region. A women's program has been under way in your microregion for about a year and you participate in it. Describe your feelings when you first heard about the program. Explain what it consists of and what you are learning. State whether your outlook has changed as a result of the program, and whether your life and your family's life have changed.

b. You are a farmer in one of the villages where Manuel works. Write an account of his work. Describe your feelings when you first heard about him and explain how your feelings changed (if they did) during the growing season. State whether you decided to use the methods he demonstrated, and how your life changed as a result of your decision.

Lesson 7 — A PIDER PLAN FOR ALFONSO CASO

Lesson objective

As a result of this lesson, students should be able to:

1. Use the knowledge they have acquired in their study to develop a plan for a village in a PIDER micreregion. (Activity 7.2)

Materials

Tackling Poverty in Rural Mexico (for reference)
Worksheet No. 10. A PIDER Plan for a Village in the Sur de Yucatan Micreregion (cont'd.)
Filmstrip. Many Steps, One Goal

Vocabulary

peninsula
Maya

Pronunciation

Alfonso Caso	Al-fon-so Cah-so
Sur de Yucatan	Soor duh You-kuh-tahn
Yucatan	You-kuh-tahn

Lesson 7 — A PIDER PLAN FOR ALFONSO CASO

Activities

Note: Teachers should preview the filmstrip to be shown in this lesson. The narration is on page 45. Plan the class so that 15 minutes remain at the end to view the filmstrip.

7.1. On a wall map of the world or of Central and South America, have students locate the Yucatan peninsula and the approximate locations of the Sur de Yucatan microregion and Alfonso Caso. Have them locate Yucatan on the map on the back cover of their books and on the map pages 14-15.

7.2. Do the role-play in Worksheet No. 10. Have the campesinos sit on one side of the room and the government officials on the other. Act as PIDER coordinates and run the meeting, or appoint a student to do so.

Have students discuss the questions on page 3 of the worksheet. There will be disagreement between the two groups; allow it to be expressed. Encourage students to suggest activities not included in the worksheet (demonstration plots, farmer-training, introducing new crops, building a school or health center, modernizing the water system, setting up a women's program, etc.) Help students to move toward agreement on the needs of the village and activities to meet them. Allow the discussion to continue for about 20 minutes.

Ask students what they learned from the role play: they should be able to respond that they learned how difficult it is to reconcile different points of view.

7.3. Show the filmstrip, Many Steps, One Goal, to help students for the test they will take the next day. Tell them to note any PIDER acitivities mentioned in the filmstrip that they have not heard about before.

7.4. Homework. Prepare for a test. The test will cover the Economic Summary: Mexico and the book, Tackling Poverty in Rural Mexico, and will have three parts: a map, multiple-choice and brief answer questions, and an essay question. In the essay question, students will explain how living conditions in PIDER micreregions are changing as a result of PIDER.

Lesson 8 TEST

During this lesson, students will take a test. There are no additional objectives for the lesson.

Materials

Worksheet No. 11. Test

Activities

8.1. Distribute Worksheet No. 11 which is a test. Point out to students that there are three parts of the 1 test. They should spend no more than 5 minutes on Part One, 10-15 minutes on Part Two, and 20 minutes on Part Three.

Time students as they take the test: after 5 minutes, tell them to go on to Part Two; 15 minutes later, tell them to go on to Part Three.

Instructions for grading the test begin on page 42.

Supplementary activity

* 8.2. Distribute Worksheet No. 12 and have students select an additional activity.

Lesson 8 TEST

Instructions for grading Worksheet No. 11

Part One (12 points)

6 Gulf of California
3 Gulf of Mexico
1 Pacific Ocean
F Belize
A El Salvador
G Guatemala
C Honduras
B Mexico
E United States
5 Aguascalientes
7 Puebla
2 Yucatan

Part Two (33 points)

1. b
2. c
3. b
4. a
5. c
6. b
7. a
8. a

9. Six of the following:
   - building roads, ports, power plants
   - increasing the production of consumer goods
   - increasing the production of oil and natural gas
   - building urban schools
   - improving urban health care
   - providing urban public transportation
   - population education
   - family planning services

10. Four of the following:
   - many poor people
   - old-fashioned farming methods
   - low agricultural output
   - poor roads
   - little electricity
   - few schools
   - remote, water
   - few health clinics

Lesson 8 TEST

11. Six of the following:
    - farmer-training
    - bank loans
    - demonstration plots
    - livestock herds
    - setting up orchards
    - irrigation systems
    - setting up workshops
    - road building
    - electricity
    - health clinics
    - school building
    - women's programs

12. Two of the following:
    - develop a plan with officials of government agencies and micreregion residents
    - coordinate activities of government agencies
    - provide funds for activities

13. a. 4
    b. 5
    c. 6
    d. 3
    e. 2

14. 1. Rural poverty: One of the following:
    - higher rural incomes
    - more schools
    - better health care
    - more roads and electricity

    2. Crowded cities - better rural opportunities reduce urban migration

Part Three (20 points) See page 44.

Lesson 8 TEST

Part Three (20 points)

Good papers would make some of the following points:

Living conditions before the PIDER program
- many poor people
- little electricity
- few schools and health clinics
- remote and impure water
- old-fashioned farming methods
- poor roads
- low agricultural production

Living conditions after the PIDER program
- more food for families in the micreregion
- more food for other parts of Mexico
- other products for sale
- more income for families in the micreregion
- more educational opportunity
- better health care
- better roads
- feelings of hopefulness

Grading			Suggested scale
	Part One ----	12 points	65 - 59 --- A
	Part Two ----	33 points	58 - 52 --- B
	Part Three --	20 points	51 - 45 --- C
		65 points	44 - 39 --- D
			38 -------- F

NARRATION FOR FILMSTRIP: MANY STEPS, ONE GOAL

(Time: 11:20)

Focus and start sound

1.	TOWARD A BETTER WORLD World Bank Educational Materials	----
2.	Mexican market	First Voice Mexico is a colorful country, with a remarkable past and a promising future.
3.	Olmec jade carving	Three thousand years ago, people called the Olmecs carved religious objects from jade and built ceremonial centers in Mexico.
4.	Monte Alban	Two thousand years ago, the Zapotec people of Monte Alban levelled the top of a mountain and built their capital city there.
5.	Mayan carving	A thousand years ago, the Maya used rich carvings to decorate their massive stone pyramids and other buildings.
6.	Aztec jewelry	Five centuries ago, the wealth of the Aztec empire attracted Spanish conquerors.
7.	Industry	Today, Mexico is in many ways a prosperous country. Its industry produces steel and textiles, radios and chemicals -- almost everything produced by modern economies throughout the world.
8.	Agriculture	Modern farms in parts of Mexico are as advanced as any in the world.
9.	Natural gas plant	Mexico has recently discovered more oil and natural gas. Its reserves now are nearly as great as those of Saudi Arabia.
10.	Mexico City	Millions of Mexicans enjoy living standards much the same as those in the developed countries. But millions of other Mexicans live in urban slums...
11.	Poor farmland	...or on small farms with poor land that gets little rain.

12.	Farmer carrying corn	They eke out a meager living raising corn and beans...
13.	House	...and live in houses without electricity.
14.	Women at a well	Women spend a lot of their time hauling water from wells and carrying it to their houses.
15.	Farmer	To assist poor farm families, the government of Mexico began a new program in the early 1970s.
16.	Title slide Group in conversation with overlay: MANY STEPS, ONE GOAL	The new program involves many steps leading to one goal: helping poor farm families to improve their living conditions. This is the story of Mexico's new program.
17.	Road building	Second Voice Agencies of the Mexican government have been building roads in rural Mexico for many years, along with irrigation works, dams, and electric power lines.
18.	School construction	They have also been building clinics and schools in rural areas, training farmers, and conducting research.
19.	Good farmland	As a result, some Mexican farms produce millions of tons of fruit, vegetables, and cotton. People on these farms are much better off than they used to be.
20.	Poor farm	But millions of poor farm families were barely touched by the work of government agencies. The new program would ensure that these agencies helped poor farmers, too.
21.	Graphic: Programa Integral Desarrollo Rural	The new program is called PIDER. The name comes from the first letters of the Spanish words that mean "Integrated Program for Rural Development."
22.	Graphic: Wheel with PIDER at the hub	PIDER is like the hub of a wheel. It works with other government agencies that are like the spokes of a wheel. PIDER provides money and coordinates the activities of these agencies.

23. Map of microregions, 1972	When the program began, PIDER officials identified 41 areas in Mexico as "microregions." They are yellow on this map. In PIDER microregions, people produce very little and have few roads or schools and little electricity.
24. Map of microregions, 1981	PIDER now works in more than 130 microregions. Because of the help of PIDER and the government agencies it works with, life in the microregions in changing.
25. Graphic: Pie chart -- 70%	About 70 percent of PIDER's money pays for steps that help farmers produce more and earn higher incomes.
26. Irrigation system	For example, an irrigation system might be built by farmers in a microregion where there is little rain. PIDER would arrange for it with the Department of Agriculture and Water Resources.
27. Tomato plants	A new crop--such as tomatoes--might be introduced in a micreregion where farmers grow mainly corn. With PIDER's help, a government agency might show farmers how to grow tomatoes...
28. Boys selling tomatoes	...to be sold at a local market.
29. Beekeepers	Through PIDER, farmers in that microregion might also learn to raise bees to produce honey.
30. Men building a dirt bar barrier	In a microregion where soil is eroding, farmers might learn how to build dirt barriers to prevent further erosion. PIDER would arrange for this with the Soil and Water Conservation Service.
31. Weaver	In a microregion where cotton is grown, a weaving workshop might be set up with funds from the National Bank for Rural Credit. PIDER would help arrange for the loan.
32. Graphic: Pie charts -- 70%, 20%	PIDER spends about 20 percent of its money each year on steps that support the efforts of microregion people to produce more.

33.	Road building	Roads and bridges are built in many microregions, arranged by PIDER and the Department of Public Works. The new roads enable farmers to get their produce to markets more easily.
34.	Market	PIDER also sees to it that better markets and warehouses are built in the microregions. It cooperates with CONASUPO, another government agency, in building them.
35.	Electricity	And PIDER arranges with the Federal Electricity Commission to bring electric power to villages in the microregions-- to light homes and operate irrigation systems.
36.	Farmer training	Another step PIDER takes is to see that farmers are trained in better farming methods.
37.	Graphic: Pie charts--70%, 20%, and 10%	The rest of PIDER's funds, about 10 percent each year, go for steps that increase the opportunities of families in the micreregions.
38.	School	With the Federal Program for School Construction, PIDER is helping people build schools...
39.	Construction	...and with the Department of Health, it is helping them build health clinics.
40.	Map of microregions, 1981	First Voice So many steps to help farmers in so many microregions. How does PIDER work in a single microregion?
41.	Slide 24 with arrow to Aguascalientes	Take a microregion where there is little rain. To decide on steps to take to improve living conditions there...
42.	Group of men	...officials from PIDER and other government agencies met with people living in the microregion. They agreed that one community needed an irrigation system to enable farmers to produce more.
43.	Drilling a well	Wells were dug and pumps were installed to bring water to the surface. PIDER arranged to have the drilling equipment and the pumps brought to the village.

44.	Laying pipes	The villagers laid the pipes that carried water to the fields. PIDER helped the villagers to get a loan from the National Bank for Rural credit to pay part of the cost.
45.	Irrigation channel	When water flowed into channels in the fields...
46.	Field of corn	...more could be grown on the land.
47.	Chilies	In another step in the same village, PIDER officials persuaded farmers to grow chilies, the hot peppers used in Mexicon cooking...
48.	Avocado tree	...and avocados. Farmers could sell chilies and avocados in local markets and earn more income.
49.	Furniture factory	In another village in the microregion, a small furniture factory was set up with PIDER's help. The factory provided jobs, and its products were shipped to other parts of Mexico.
50.	Electricity	People in many villages in the microregion needed electricity. So PIDER arranged for the Federal Electricity Commission to build power lines.
51.	Farmer training	It also arranged for farmer-training programs...
52.	Market	...and saw to it that a government agency built a new market.
53.	Composite: pipelaying (47)/ chilies (44)	PIDER is taking many steps in the microregion. Taking one step alone would help, a little. Taking many steps together helps a great deal.
54.	Slide 24 with arrow pointing to Sur de Yucatan	Second Voice Take another micreregion in another part of Mexico. In Yucatan, there is plenty of rain and fertile soil.
55.	Corn field	Here farmers were growing corn. But the land could be used to raise cattle that would produce meat, leather, and milk. So PIDER took steps to start cattle production.

56.	Cattle herd	PIDER officials encouraged farmers to buy steers and heifers with a loan from the National Bank for Rural Credit.
57.	Feeding troughs	The loan included funds to build feeding troughs...
58.	Farmers installing fences	...and fences around the pastures.
59.	Milking cows	The cows produced calves and milk...
60.	Butcher shop	...and the steers produced meat that a local butcher sold in his shop.
61.	Sandal workshop	PIDER officials helped to set up a small workshop where people could make leather sandals from the hides of the steers.
62.	Road	New roads were built to enable farmers to get their products to nearby markets.
63.	Building a health clinic	And PIDER arranged for the Department of Health to help microregion people build a clinic where they could get better health care.
64.	Woman at work	PIDER officials organized a program for women with the Department of Agriculture and Water Resources. Women learned how to grow more nutritious foods on the garden plots near their houses.
65.	Composite: livestock (56)/ building (63)	In this micreregion, too, PIDER has taken many steps toward its goal of helping poor farm families to improve their living conditions.
66.	Men in conversation	<u>First Voice</u> Has PIDER made a difference? Ask these farmers. (Man's voice in Spanish, with voice-over in English) Our incomes have more than doubled...
67.	Good farm land	...because we are getting better harvests.
68.	Fruit pickers	More people have work because we are raising new crops. (End man's voice.)
		<u>Second Voice</u>
69.	Girl	(Woman's voice in Spanish, with voice-over in English). Our children are getting a few years of schooling...

70.	Children	...and they have better clothing...
71.	Woman at stove	...and we have more food to feed our families. (End woman's voice)
72.	Composite: natural gas plant(9)/ industry (7)/ agriculture (19)	First Voice Mexico is in many ways a prosperous country.
73.	Poor farm	But millions of rural families still produce very little and are very poor.
74.	Map of microregions, 1981	For many years to come, Mexico must pay special attention to the needs of its poor farmers. It must continue to take many steps toward the goal of helping them to improve their living conditions.
75.	Slide 16 with overlay	----

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WORKSHEETS

- By cutting the worksheets along the line of dashes, teachers can remove them for duplicating without damaging the Teaching Guide.
- Worksheets preceded by an asterisk are for highly motivated students.
- Teachers should read each worksheet carefully before using it to determine whether it is appropriate for their class.

	Worksheet No. 1.	Lesson 1	Finding Out About the Mexican Economy
	Worksheet No. 2.	Lessons 1 and 2	While You Read
*	Worksheet No. 3.	Lesson 2	Development Activities in Mexico
	Worksheet No. 4.	Lesson 2	Mexico and Neighboring Countries
	Worksheet No. 5	Lesson 3	While You Read
	Worksheet No. 6	Lesson 4	Why Is Coordination Necessary?
	Worksheet No. 7.	Lessons 4 and 5	After You Read
	Worksheet No. 8.	Lessons 6 and 7	Getting Ready for a Class Discussion
*	Worksheet No. 9.	Lessons 6 and 7	What Would You Do If...?
	Worksheet No. 10.	Lessons 6 and 7	PIDER Project for a Village in the Sur de Yucatan Micreregion
	Worksheet No. 11.	Lesson 8	Test
*	Worksheet No. 12.	Lesson 8	Some Additional Activities

FINDING OUT ABOUT THE MEXICAN ECONOMY

Answer the questions below as well as you can. Guess and use your common sense. Later on you will correct your answers, using the columns on the right hand side of the page.

1. Circle Mexico on the map.

2. Label the United States.

3. Write on the map the names of the bodies of water that border Mexico.

4. What is the name of the capital city of Mexico?

   _____

   Place an "x" in its approximate location.

Check the word or phrase that correctly completes the sentences below.

5. The area of Mexico is:

   _____ about the same as that of the U.S.
   _____ about 1/2 that of the U.S.
   _____ about 1/4 that of the U.S.

6. The population of Mexico is:

   _____ about the same as that of the U.S.
   _____ nearly twice that of the U.S.
   _____ about 1/3 that of the U.S.

7. In 2000, the population of Mexico is likely to be:

   _____ nearly double what it is now
   _____ nearly equal to that of the U.S. today
   _____ about 20 million more than now.

Correction	Statistic

Answer the questions below as though you were a typical Mexican your age. Ignore the columns on the right hand side of the page: You will use them later.

8. Where do you live?
   _____ on a farm
   _____ in a city

9. What work do your parents do?
   _____ farming
   _____ factory or office work

10. Do you attend school?
    _____ yes
    _____ no

11. Can your parents read and write?
    _____ yes
    _____ no

12. Do you have a good chance of living until you are 70?
    _____ yes
    _____ no

13. How many babies in 100 die before they are 1 year old?
    _____ three
    _____ six
    _____ nine

14. How many doctors per person are there in comparison with the United States?
    _____ about the same number
    _____ about half as many
    _____ about 1/3 as many

15. How many calories-worth of food do you eat a day in comparison with a typical American your age?
    _____ about the same number
    _____ about 3/4 the number
    _____ about half the number

16. How much energy do you use in comparison with a typical American your age?
    _____ about 1/2 as much
    _____ about 1/8 as much
    _____ about 1/10 as much

17. In comparison with a typical American your age, how many goods and services are available to you?
    _____ about 1/2 as many
    _____ about 1/8 as many
    _____ about 1/10 as many

Correction	Statistic

WHILE YOU READ

Read the Economic Summary: Mexico. Then follow the directions below.

Part One. The Mexican Economy (pages 2-5)

1. Describe briefly the "two Mexicos."

_____

_____

2. List three characteristics of modern farming in Mexico.

_____

_____

_____

3. List three characteristocs of the farming done by 4/5 of Mexico's farmers.

_____

_____

_____

4. List 6 of Mexico's natural resources, apart from its land, which are important in the world economy.

_____

_____

_____

5. List 6 products manufactured in Mexico.

_____

_____

_____

_____

_____

_____

6. List four countries with which Mexico trades a great deal.

_____

_____

_____

_____

7. List three products that are important Mexican exports today.

_____

_____

_____

8. What can Mexico do as a result of its exports?

_____

_____

9. Go back over the reading. Then list four economic problems Mexico faces.

_____

_____

_____

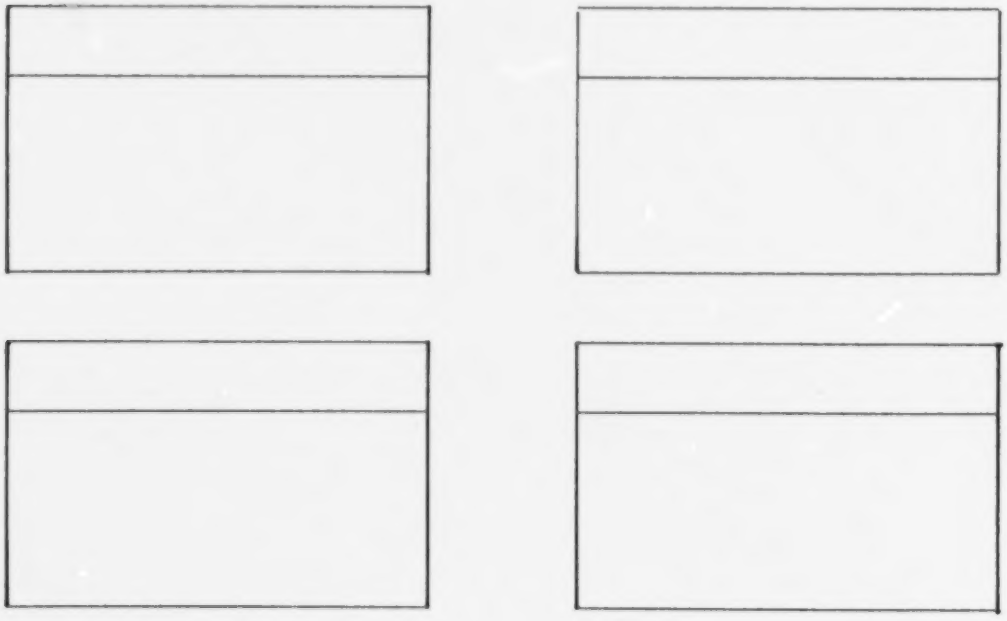
_____

Part Two. Economic Development in Mexico (pages 5-7)

10. State whether the Mexican economy grew slowly or rapidly in each of the following periods:

(a) 1940-1970 _____ (b) 1970-1978 _____ (c) 1978-1980 _____

11. At the top of the boxes below, write the goals of Mexico's development plan for 1980-1982. In the space at the bottom of the boxes, write the activities the government is engaging in to achieve each goal.



12. Where does most of the money come from to pay for Mexico's economic development?

_____

13. List four sources of loans available to Mexico to help pay for economic development.

_____

_____

14. List three things that must be done if the living conditions of most Mexicans are to improve.

_____

_____

_____

Worksheet No. 3
Lesson 2

DEVELOPMENT ACTIVITIES IN MEXICO

Listed below are eight development activities in which Mexico engages.

In the space at the right of each activity, indicate with a check mark whether the activity seems to you to contribute primarily to economic growth, or primarily to economic equity. Be prepared to discuss how each activity contributes to both growth and equity.

In the space at the left, number the activities in the order in which you would support them if you were a Mexican government offical responsible for economic development.

		Primarily growth	Primarily equity
	1. Encouraging private banks to make loans to expand industries.		
	2. Providing electricity and pure water to villages with population of less than 5,000 people.		
	3. Increasing the production of oil and natural gas.		
	4. Building and staffing primary schools in Mexico City.		
	5. Providing vocational training for young adults in urban slums.		
	6. Paving roads connecting villages and market towns in the mountains of Mexico.		
	7. Training field-workers to teach new farming methods to poor farmers.		
	8. Providing computer programming and marketing courses in technical colleges.		

MEXICO AND NEIGHBORING COUNTRIES

Use the map on the back cover of the Economic Summary: Mexico for reference.

1. Label the following on the map below:

the Gulf of California	Guatemala
the Gulf of Mexico	Honduras
the Pacific Ocean	Mexico
Belize	United States
El Salvador	

2. Place an "a" in the approximate location of the Mexican state of Aguascalientes. Place a "b" in the approximate location of the Mexican state of Puebla. Place a "c" in the approximate location of the Mexican state of Yucatan.

WHILE YOU READ

Complete this worksheet as you read Chapter Two in Tackling Poverty in Rural Mexico.

1. List five steps the Mexican government took to increase agricultural production after the Second World War.

_____

_____

_____

_____

_____

2. Give two reasons why these steps failed to help poor farmers.

_____

_____

3. Name four government agencies whose work PIDER coordinates.

_____ _____

_____ _____

4. What is a "PIDER microregion"? Briefly describe living conditions in a PIDER microregion.

_____

_____

_____

5. What is an "integrated rural development project"?

_____

_____

6. List four groups of people who work together to decide on activities to develop a PIDER microregion.

_____ _____

_____ _____

7. List the government agencies a PIDER coordinator would work with to help farmers in a microregion village grow avocados.

_____

_____

_____ _____

8. How much money does the Mexican government plan to spend on PIDER between 1973 and 1981? _____

   How much money has Mexico received in loans for PIDER? _____

   What is the total cost of PIDER to 1981? _____

   When the loans have been repaid, how much of the total cost of PIDER from 1973 to 1981 will the Mexican government have paid? _____

9. Listed below are thirteen activities that are being supported by PIDER funds. The chart below the list shows groups of activities. Write each activity in the place on the chart where it belongs.

   installing electricity
   teaching new methods to farmers
   building terraces on hilly land
   paving a road
   building an elementary school
   teaching farmers to raise bees for honey
   building a canal system
   building a health center
   planting a fruit orchard
   making loans to farmers for fertilizer
   installing a water purification system
   building a warehouse to store agricultural products

Activities to increase agricultural production	Activities to support agricultural production	Activities to provide basic services

10. On which group of activities in the chart does PIDER spend most of its money? _____

WHY IS COORDINATION NECESSARY?

The PIDER program involves many government agencies. PIDER officials coordinate the work of those agencies in PIDER microregions, and provide money for some of their activities. This worksheet is a class role-play that will show you why coordination is necessary.

Listed below are five agencies of the Mexican government that participate in the PIDER program.

BANRURAL, the National Bank for Rural Credit
Makes loans to ejidos and individual farmers for tools, seeds, fertilizer, and insecticide.

CONAFRUT, the National Fruit Development Commission
Encourages the production of fruit in Mexico; maintains nurseries where fruit saplings are grown; ships saplings to places where they will be planted; plans orchards, and supervises planting.

DAWR, Department of Agriculture and Water Resources
Plans, supplies materials for, and supervises the construction of irrigation systems; trains farmers to use new methods for growing corn and beans and new crops.

FEC, Federal Electricity Commission
Plans the extension of electricity; provides construction materials and equipment; installs or supervises the installation of power lines.

FPSC, the Federal Program for School Construction
Selects sites for schools, plans them, provides construction materials, and constructs or supervises the construction of schools.

You are a representative of one of these agencies.
Write the name of your agency here. _____

Time and Place

It is 1973 and the PIDER program is new. An area in the southwestern part of the Mexican state of Chihuahua has been designated as a PIDER microregion. Using the map on the back cover of Tackling Poverty in Rural Mexico, locate the state of Chihuahua. Describe its climate and topography briefly.

_____

Locate the microregion on the map on pages 14-15. From what you have read about PIDER microregions, describe living conditions in the microregion.

_____ _____

_____ _____

The PIDER Plan

The PIDER plan for the microregion in Chihuahua includes the following projects for the village of San Pablo:

- increase the production of corn and beans so families will have more to eat;
- start a small orange grove to produce oranges for sale in other parts of Mexico;
- build a small irrigation system to provide water for the orange grove;
- bring electricity to the village to provide power for household lighting and the irrigation system;
- build an elementary school.

People in the village will provide the labor needed for these activities, but they will need to be shown what to do and be supervised.

Your Task

Representatives of the agencies listed on page 1 are going to meet with the state DPB official and the PIDER microregion coordinator. In the meeting, they will make plans for carrying out specific activities in San Pablo.

Your group, representing your agency, is to prepare for that meeting. Discuss the following questions:

- What will your agency do in the village?
- What must other agencies do if you are to do your work?
- What must your agency do if other agencies are to do their work?
- What schedule will you follow?

Plan the activities of your agency and the schedule you will follow on the planning sheet (page 3 of this worksheet). Bear in mind that farmers will do much of the work themselves, so that two projects cannot be carried on at the same time. Plan to have all activities completed in 2-1/2 years.

PLANNING SHEET

		BANRURAL Makes loans to farmers	CONAFRUT Helps with fruit growing	DAWR Trains farmers, builds irrigation systems	FEC Plans, installs electric power	FPSC Plans, builds schools
1974	January - March					
	April - June					
	July - September					
	October - December					
1975	January - March					
	April - June					
	July - September					
	October - December					
1976	January - March					
	April - June					

120

AFTER YOU READ

Complete this worksheet after reading Chapter Three in Tackling Poverty in Rural Mexico.

1. What had to be done to get water out of the ground in Aguascalientes?

_____

2. Explain how the project described in the chapter illustrates the statement that "PIDER is like the hub of a wheel." Be specific.

_____

_____

_____

3. Listed below are some decisions the ejidatarios had to make about the PIDER project. Number these decisions in the order in which they were made. Write the numbers in the spaces at the left.

_____ a. How much irrigated land can each of us care for?

_____ b. Where in the ejido should the irrigation system be located?

_____ c. How much can we afford to pay back each year on a loan?

_____ d. What improvement do we most want in our ejido?

_____ e. Should we plant a vineyard and grow grapes on part of the irrigated land?

_____ f. What should we plant first on the newly irrigated land?

_____ g. Should we meet with PIDER officials to discuss a project?

_____ h. Should we divide the irrigated land into plots each of us will farm, or should we farm it together?

_____ i. Should we grow chilies on the irrigated land?

4. List four specific ways in which the lives of people in the ejido are changing as a result of the PIDER project.

_____

_____

_____

_____ _____

GETTING READY FOR A CLASS DISCUSSION

As your read Chapter Four in Tackling Poverty in Rural Mexico, make notes to use in a class discussion of the following questions.

1. Recall what you know about the Mexican economy. Why do you think Manuel Ruiz decided to become an agricultural expert?

2. Assume that you are Manuel, and that you are going for the first time to the villages in Zacapoaxtla where you will work later on. How will you treat the farmers you meet?

3. Why did Manuel have to talk to the branch manager of BANRURAL in Zacapoaxtla about loans for the farmers he was working with?

4. By growing corn on demonstration plots, Manuel persuaded many farmers to use new farming methods. Why do you think he had to set up other demonstration plots for beans and potatoes?

5. Manuel was one of only seven field-workers trained in Puebla. All of them together can reach only a small fraction of the 12,000 farmers in the Zacapoaxtla microregion. What could be done to reach more farmers more quickly?

6. List all the things you can think of that made Manuel's work successful.

WHAT WOULD YOU DO IF...?

...you were Manuel Ruiz, and you have been invited to a meeting with the Director of the Training Center at Puebla? You have completed the first year of your work in the Zacapoaxtla micro-region. You are starting to set up new demonstration plots -- in the villages where you worked last year, and in some villages that are new to you.

The Director of the Training Center has two visitors from a neighboring state: a DPB staff official and a PIDER microregion coordinator. The visitors are planning a program to train farmers to use new farming methods. They have heard about your program in the Zacapoaxtla micro-region and have come to learn more about it.

The visitors' plan has the following features:

1. Thirty boys who are about to graduate from an agricultual technical school in the capital city of their state will be hired as field-workers for a period of two months. There is unemployment throughout the state so there will be many candidates for the jobs, although the pay will be low.

2. The boys will be trained for a week. They will learn about soil conditions and farming practices in the microregion and will receive instructions about what they are to teach farmers.

3. Each field worker will be assigned to five villages in the microregion. There are 150 villages in the microregion, so each will have one field-worker. Most farmers in the micro-region speak a local dialect, but some speak Spanish, which the field-workers speak. Spanish-speaking farmers will act as interpreters for the field-workers.

4. The field-workers will live for seven weeks in one of the villages assigned to them. They will spend one day of each week in each village.

5. The field-workers will hold meetings in each village. At the meetings, they will tell farmers about seeds and fertilizer that will help them produce more corn and beans, and about other crops they might produce for sale in the nearest market town.

The director of the Training Center in Puebla wants you to comment on the plan. To prepare your comments, make notes to answer the following questions:

1. Compare the visitors' plan with what you have been doing in Zacapoaxtla. List some specific differences between your program and their plan.

2. What changes would you suggest in the visitors' plan?

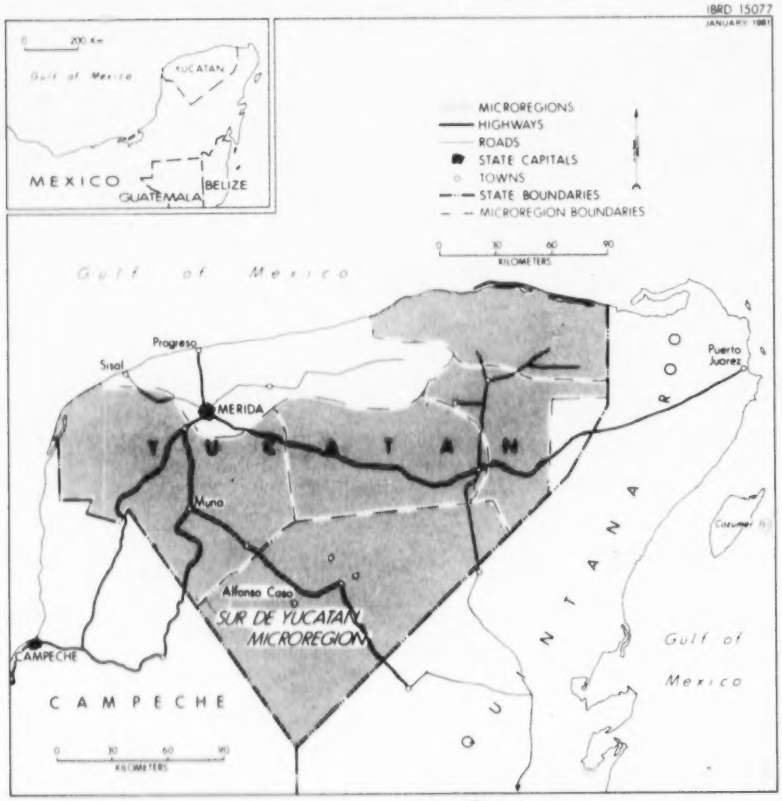
A PIDER PROJECT FOR A VILLAGE

IN THE SUR DE YUCATAN MICROREGION

The Yucatan peninsula in Mexico is the site of many monuments of the Maya civilization that flourished in Central America a thousand years ago. Most of the people in the peninsula are Maya Indians, descendents of the ancient Maya. Speaking their own language and living far from the heartland of their country, they have not shared in Mexico's economic advance. Most of them are very poor.

The state of Yucatan is in the northeastern part of the peninsula. Five PIDER microregions occupy most of the state. Sur de Yucatan is the southernmost microregion. Heavy rain falls from June to October, and much of the land is forested. People in the microregion have few schools, no hospitals, and few health clinics. There is little electricity and there are few paved roads. In most villages, wells are some distance from houses. Farmers use centuries-old methods to farm small plots of land, raising barely enough corn to feed their families.

Microregions of Yucatan



PIDER officials are beginning to consider a program for the Sur de Yucatan microregion. They are in close touch with the National Institute of Indian Affairs (INI), an agency of the Mexican government that has been working for many years with the Maya. PIDER and INI officials agree that the greatest need of the people in the microregion is to earn more income.

For some time, it has been known that the microregion has a valuable unused natural resource: rich soil that is covered by dense forest. If the land were cleared and planted in pasture, cattle could be raised. Then lumber, meat, and hides could be sold in markets in Yucatan and shipped to other parts of Mexico.

A project to raise livestock appeals to PIDER and INI officials, but it would be complicated. Tools and hauling equipment would be needed to clear the forest. Several roads would have to be improved. Pasture seed and fertilizer would be necessary. The pasture would have to be irrigated in the dry season between November and May. A loan would be needed to buy a herd of steers and heifers. The Maya are not accustomed to herding, and they would have to be trained in pasture maintenance and cattle tending. Many government agencies would be involved--PIDER, INI, DAWR, BANRURAL, the National Institute of Livestock Research (NILR), the Department of Public Works (DPW), and the Federal Electricity Commission (FEC).

Alfonso Caso is a small village in Sur de Yucatan (see map). There is no school in the village and no electricity. The nearest paved road is 10 kilometers away. The track leading from the village to the road is impassable during heavy rains. The nearest hospital is in Merida, the state capital; there is a health clinic in Muna, on the way to Merida.

A meeting is about to be held in Alfonso Caso of campesinos, the PIDER coordinator, and officials from government agencies. The purpose of the meeting is to plan a PIDER project for the village. You are to attend the meeting and express your point of view. In preparing for the meeting, make notes to answer the following questions. Write here whether you are an official or a campesino. _____

1. What needs of the village seem to you to be the most important?

2. What activities would help meet these needs?

3. What government agencies would help with these activities?

4. In what order should these activities take place?

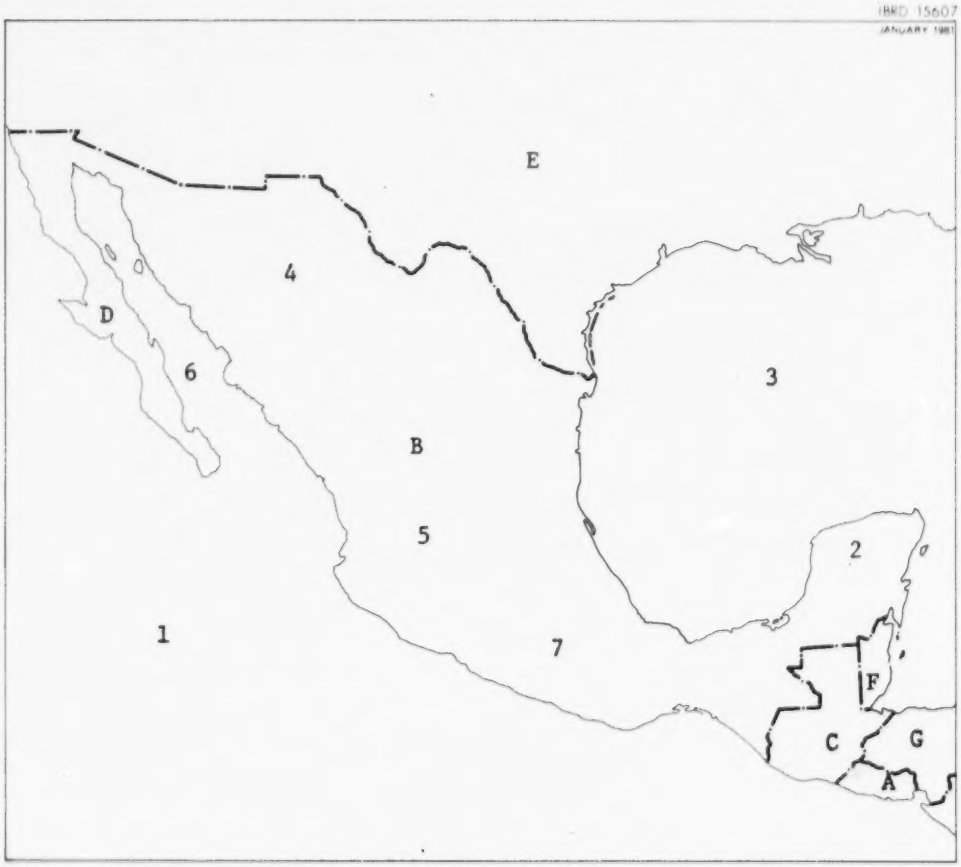
(Name) _____

TEST

Part One

On the map below, countries are labeled with letters and other places are labeled with numbers. In the space at the left of each place in the list, write the letter or number on the map that shows its location. There will be one letter and one number left over.

_____ Gulf of California
_____ Gulf of Mexico
_____ Pacific Ocean
_____ Belize
_____ El Salvador
_____ Guatemala
_____ Honduras
_____ Mexico
_____ United States
_____ Aguascalientes
_____ Puebla
_____ Yucatan



_____
(Name)

Part Two

Read each sentence below. Then write the letter of the word or phrase that correctly completes it in the space at the left of the sentence number.

_____ 1. Study the data in the table and complete the sentence below it.

	Gross national product	population	GNP per capita
India	$115,900,000,000	643,900,000	$180
Mexico	$65,400,000,000	65,400,000	$1,290

Mexico's GNP per capita is much higher than India's because:
(a) Mexico's GNP is about half the size of India's.
(b) India's population is much larger than Mexico's.
(c) Mexico trades much more with the United States.

_____ 2. The following conditions are present in Mexico:
(a) little modern industry
(b) few natural resources except petroleum
(c) urban and rural poverty

_____ 3. Some farms in Mexico produce a great deal because of:
(a) the low proportion of families who make a living in agriculture
(b) the use of irrigation and modern machinery
(c) long experience in agriculture

_____ 4. Most of the money to pay for economic development in Mexico comes from:
(a) the Mexicans themselves
(b) commercial banks in the developed countries
(c) international organizations.

_____ 5. Mexico's foreign trade consists of:
(a) a variety of exports and imports
(b) large exports of oil and few imports
(c) many imports but few exports.

_____ 6. Mexico's population is beginning to increase less rapidly,
(a) so Mexico no longer has a population problem
(b) but there will be nearly twice as many Mexicans in 2000 as there are today
(c) and urban migration appears to be slowing it down even more.

_____ 7. The proportion of Mexicans who live in cities is:
(a) high and increasing rapidly
(b) low and increasing rapidly
(c) high and increasing slowly.

_____ 8. In the last 400 years, the standard of living of most Mexican farm workers has:
(a) slowly but steadily improved
(b) remained very low
(c) improved at some times and deteriorated at others.

_____
(Name)

Write brief answers in the spaces provided.

9. List six activities not included in the PIDER program in which Mexico is engaging to improve the living conditions of its people.

_____ _____

_____ _____

_____ _____

10. State four characteristics of areas that are selected as PIDER microregions.

_____ _____

_____ _____

11. From your knowledge of the PIDER program, list six activities that might be part of an "integrated rural development" program in any country.

_____ _____

_____ _____

_____ _____

12. Describe briefly two of the responsibilities of PIDER officials in the PIDER microregions.

_____

_____

_____

13. In the space at the left of the government agencies listed below, write the number of the activity in which it engages in PIDER microregions. (You will have one activity left over.)

_____ (a) Agricultural Program for Rainfed Areas

_____ (b) BANRURAL

_____ (c) CONAFRUT

_____ (d) Department of Agriculture and Water Resources

_____ (e) Department of Public Works

1. Builds and improves roads
2. Builds schools
3. Trains farmers
4. Trains field-workers
5. Makes loans to farmers
6. Assists in growing fruits

(Part Two is continued on page 4.)

_____
(Name)

14. In the space at the right of the chart, state how the PIDER program is helping to solve the problem listed at the left.

Economic problems of Mexico	How PIDER is helping
1. Rural poverty	
2. Crowded cities	

Part Three

Choose one of the following.

1. Write a newspaper article about the PIDER program. You may write in general terms about all microregions, or you may write about a single one. Briefly describe living conditions before PIDER activities began. Then describe how living conditions are changing as a result of these activities.

2. You are Pedro Vasquez. Write a letter to your friend who operates a taxi in Mexico City. Explain that you have decided not to join him but will remain in San Jose del Rio instead. Describe briefly what life used to be like in the ejido. Then state some specific changes that have occurred in the ejido as a result of the PIDER program.

3. You are a woman in a village in the Zacapoaxtla microregion where Manuel Ruiz set up a demonstration plot. Write an account describing what your family's life used to be like. Then describe some specific changes that have come about since your husband began to use the farming methods Manuel taught. If you have time, you may list further changes you would like to see.

ADDITIONAL ACTIVITIES

1. Plan a trip to a PIDER microregion. Choose a microregion from the map on pages 14-15, identify the state in which it is located, and briefly describe its climate and topography. List the people you would talk to about the PIDER activities that are under way, and list the questions you would ask. You may write an imaginary account of the trip if you wish to.

2. Working with a small group, continue the discussions you began in Lesson 7 of a plan for Alfonso Caso in the Sur de Yucatan microregion. Develop a detailed plan and present it to the class.

3. Many tourists travel to Yucatan to visit the monuments of Maya civilization. Do some research to identify some of these monuments. Then draw up a list of things people in PIDER microregions might do to benefit from the tourist trade. Suggest steps the PIDER program might take to help with such a project.

4. Conduct debates on one or more of the following propositions:

   Resolved: The government of Mexico should focus all its resources for development on increasing employment and improving living conditions in its cities.

   Resolved: The Mexican economy will advance more rapidly if more attention is given to improving the lives of women.

   Resolved: The PIDER program has several features that can be applied in other developing countries.

5. Five years ago, your older brother was an exchange student and spent a semester attending school in the city of Aguascalientes. During this time, he visited San Jose del Rio and wrote a letter to you describing the visit. Now you are an exchange student in Aguascalientes and you have visited San Jose del Rio yourself. Write a letter to your brother describing your visit, noting how things have changed in the last five years.